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THE OPHTHALMIC RECORD

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The July number of the OPHTHALMIC RECORD will contain amongst others, an original article by H. Gifford, M. D., "A case of Blindness from Drinking Cologne Spirits, (Methyl-Alcohol);" one by Lewis H. Taylor, M. D., "The Operation of Couching Performed by a Mule;" one by Carl Weiland, M. D., "The Controversy About the Dioptric Value of the Cornea;" one by A. Levy, M. D., "A case of Conjunctival Tuberculosis with Peculiar Onset, Ending in Spontaneous Healing." There will also appear Abstracts, Editorials, Society Reports, Personals and Items of Interest to the Profession, and Report of the Proceedings of Ophthalmic Section of American Medical Association.

The RECORD particularly desires short practical papers on any subject connected with Ophthalmology. These will be published at as early a date as possible. It is understood that, unless otherwise arranged, original articles when accepted are contributed to the RECORD exclusively. Illustrative cuts will be made at the expense of the journal, and proofs forcorrection will be sent to authors when desired. Reprints with covers are furnished at cost. One hundred of these will be presented to authors *gratis* when a request for them is written on the original manuscript. The RECORD will be issued monthly, and each number will contain about 54 pages of reading matter.

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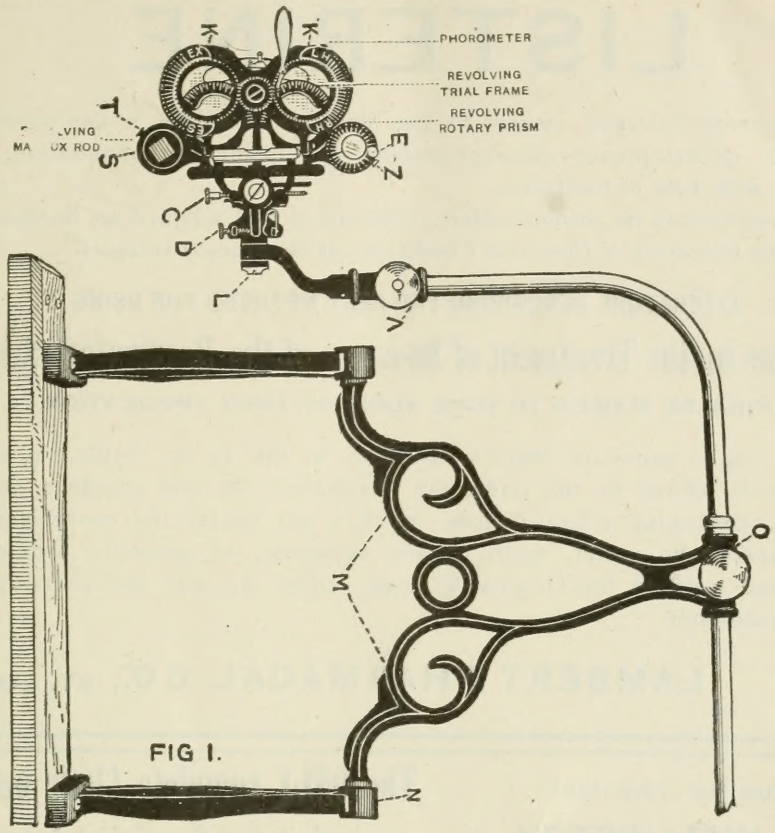

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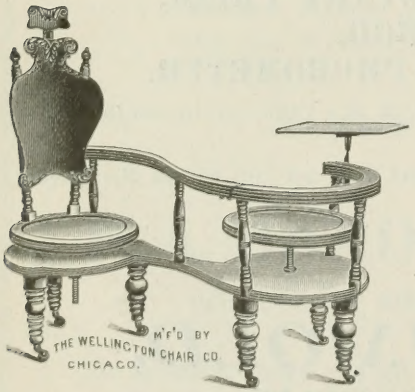

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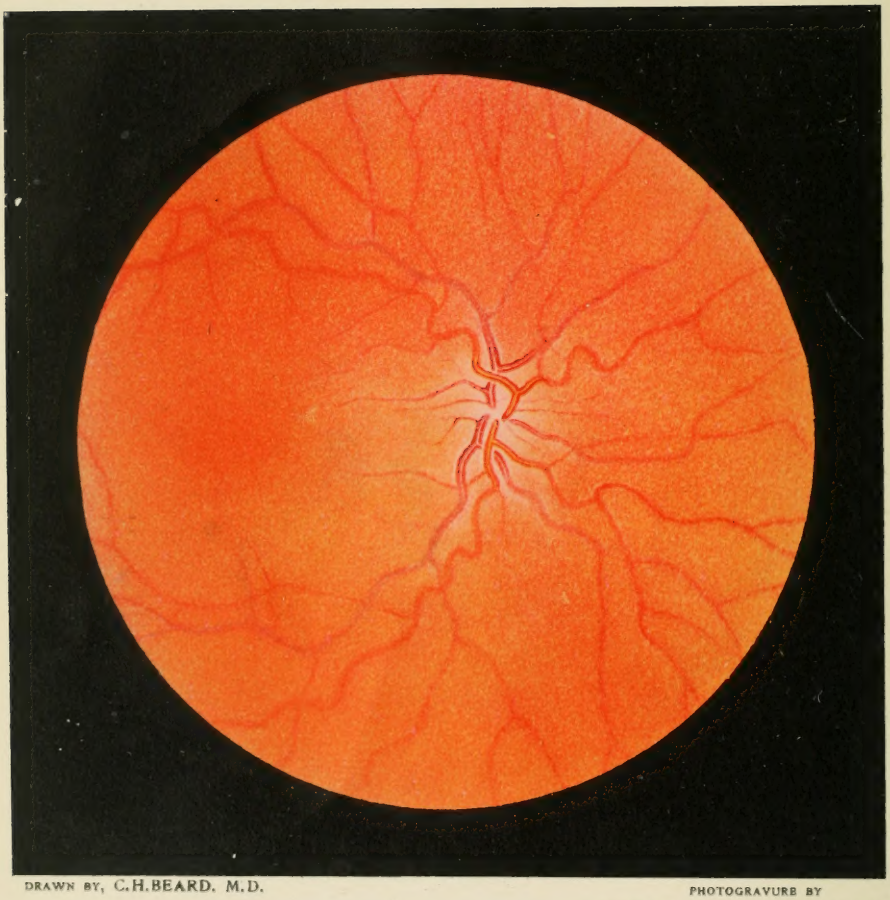

DRAWN BY, C.H.BEARD. M.D.

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THE

OPHTHALMIC RECORD

A MONTHLY REVIEW OF THE PROGRESS OF OPHTHALMOLOGY.

VOLUME X. CHICAGO, JUNE, 1901. No. 6. NEW SERIES

ORIGINAL ARTICLES.

CONGENITAL ABSENCE OF OPTIC DISCS, WITH CONDITION SIMULATING CHOKED DISC.

By CHAS. H. BEARD, M. D.

CHICAGO.

(WITH COLORED FRONTISPIECE.)

A. E., aged eleven, the daughter of one of Chicago's oldest and most respected families, was referred to me September 1st, 1894, by my neighbor, Dr. Ralph N. Isham, for examination of the eyes. The mother stated that the child, though formerly healthy, had, for the past month, been very nervous—cried without apparent reason, became dizzy at times, and had vomited on several occasions. During this time she also complained frequently of headache and pain in the eyes. There was also photophobia. The family history was good except, indefinitely, as to the father, who had died a year or two previously. There were several older children, all in perfect health.

External inspection of the eyes revealed no anomaly.

R. V. $\frac{20}{100}$; $\frac{20}{70}$—w+3 D.

L. V. $\frac{20}{100}$; $\frac{20}{70}$+w+3 D.

Cylinders do not improve.

Ophthalmoscopic examination disclosed in each eye what appeared to be recent choked disc. There was no trace of disc borders, nor of the liminæ cribrosæ, the retinal vessels emerged at the summit of a mound which measured, by the ophthalmoscope, + 10 diopters. All the retinal vessels were a trifle smaller in calibre than is normal and the arteries were very sinuous. The hexagonal pigment, the

choroid, the macula and fovea all appeared normal. The fields for both white and colors were normal in both eyes save, perhaps, a slight narrowing in the right for blue. There were no visual scotomata. Although there were no signs of inflammation nor the products thereof, a diagnosis of double choked disc was made, as regarded the eyes and, with the aid of the family physician, I at once set about making a more exhaustive general examination. Nothing further, however, was discovered.

The menses had not, as yet, been established—this having occurred some two years later.

Examination of the vision and refraction under atropine September 4th, 1894:

R. V. $\frac{10}{200}$; $\frac{20}{70}$ w+5 D.

L. V. $\frac{10}{200}$; $\frac{20}{70}$ +w+5 D.

Cylinders do not improve.

There was, of course, corresponding increase in the hyperopia at the papillæ—viz.: from ten to twelve diopters.

I prescribed +4, No. 2 violet-blue, and advised that the use of the eyes be reduced to the minimum. Acting upon the only possible hint as to a constitutional tendency, I also prescribed mixed treatment.

By October 22nd, 1894, considerable improvement in the general condition was observable. There was no more trouble with the stomach, and the headache and vertigo had greatly diminished, but the ophthalmoscopic appearances remained precisely the same. The patient continued the use of the mixed treatment until December 6th, 1894. By this time she had regained what seemed to be perfect general health. The mixed treatment was now stopped and small doses of iodide of potassium alone substituted. The latter was administered with tolerable regularity until August 10th, 1895, when, the girl being quite well and there not having been the slightest change in the fundi in all this time, it was discontinued. At this examination it was noticed that the left knee jerk was wanting, while the right was normal, and that the patient rocked to and fro decidedly in the Brauch-Romberg position.

To make a long story short, this patient has been seen by me at short intervals up to January of this year, when she went with her family to spend the rest of the winter in California. Absolutely the only changes I have to report are that the general physical condition

has become perfect, that the latent hyperopia has now apparently become manifest, and that a diagonal astigmatism has developed. Along with this there has been a slight increase in the visual acuity. For four years past she has been permitted to use the eyes freely.

At the time of the last examination, January 9th, 1901, the vision and refraction were—

R. V. $\frac{20}{100}$; $\frac{20}{70}$ + w + 5·5 s ⊂ + 1 C ax 135°.

L. V. $\frac{20}{100}$; $\frac{20}{50}$ — w + 5·5 s ⊂ + 1.25 C ax 45°.

Ophthalmoscope gives + 13.5 D, full and strong, at papillæ.

The calibre of the retinal vessels, I should say, has increased a trifle; otherwise, the ophthalmoscopic picture in each eye is identical with what it was about seven years ago. Surely the condition cannot be a pathological one.

The illustration accompanying this report represents the fundus of the right eye as viewed by the direct method of ophthalmoscopic examination, and looking through a lens of + 13 diopters; only the crest of the papilla, with its vessels, is in focus.

Injured in Chemical Laboratory.—An unfortunate accident occurred in the laboratory of Professor Ruttan, faculty of medicine, of McGill University, Montreal, Canada, recently, and will probably result in the partial blindness of a first-year medical student. The accident occurred through the unexpected explosion of a quantity of sulphuric acid and alcohol with which the students were experimenting. The test-tube of a neighboring student was submitted to Shaw's nose for his opinion as to the nature of the gas being given off, when it frothed up in his face, terribly burning it and also permanently injuring the right eye.

Mahanoy City, Pa., March 8.—Edward Kerns, of Pottsville, returned from Villanova College, twelve miles from Philadelphia, on Tuesday. He was suffering from injuries about the head. The young man's death resulted from hemorrhages brought on, it is said, by excessive hazing. He was a member of a wealthy family and a thorough investigation will be made of the case. Following the deaths of Cadets Booze and Breth from hazing, Kerns' case has caused much comment and indignation.

PARINAUD'S CONJUNCTIVITIS.*

By ELLA ROSALIND WYLIE, M. D.
Ophthalmic Surgeon to Trinity Dispensary,
BOSTON, MASS.

Parinaud in 1889 described as an infectious conjunctivitis that lesion of the conjunctivae with which his name has since been associated. In his report of three cases before the Ophthalmological Society of Paris he characterizes the disease as follows:

Rather sudden onset of inflammation of the tarsal conjunctiva, accompanied by great thickening of the lids; a muco-purulent discharge, which may be profuse at first, but rapidly becomes quite scanty; the formation in from seven to fourteen days of large, frequently polypoid, or pedunculated granulations, on the tarsi, on the folds, or on both, rarely on the ocular conjunctiva.

Between these larger granulations, which are red or grayish red, and somewhat translucent, may occur smaller, yellowish ones. Small ulcers or erosions frequently occur on or between the large granulations.

Closely following, rarely before, the onset of the conjunctivitis one or more of the groups of lymph nodes on the same side become inflamed. The pre-auricular and retro-maxillary groups are more frequently involved; sometimes, however, the cervical and sub-maxillary nodes are also affected.

The inflammation of the lymph nodes is usually very severe, the swelling often assumes enormous proportions and is frequently followed by suppuration. With the involvement of the lymph nodes slight chills, fever and general depression sometimes occurs. The affection is generally unilateral. It seems to be an infectious disease, but unlike most other acute inflammations of the conjunctiva, is not contagious. There have been no definite results from bacteriological examinations. It is said to undergo a spontaneous cure in from two to six months, and is very slow in responding to any form of treatment.

(1) Parinaud and the French writers generally consider the infection to be due to contact with animals, but do not give definite proof of this view. Since Parinaud's first description six additional cases have been reported in France. (2)

* Read before the Women's New England Hospital Society, May 17, 1900.

(1) Despagnet's Revue d'Ophtalmologie, November, 1896. page 665.

(2) Thése de Paris, 1896.

In Austria, in 1893, Goldzieher (3) reported what he considered to be a lymphoma of the conjunctiva accompanied by very active and extensive inflammation and by involvement of the retro-maxillary and sub-maxillary lymph nodes.

From his description there can be little doubt that the lesion which he described was identical with the form of conjunctivitis described by Parinaud. Although he believed the condition to be due to bacteria he could not demonstrate their presence.

In Germany a questionable case has been reported by Grieff. (4)

In America in 1898 five cases were reported by Gifford (5) of Omaha, and one by Miller (6) of Iowa.

As far as I have been able to ascertain from the literature at my disposal no other cases have been reported in this country.

The history of the case which I have observed is as follows:

October 19th, 1898, G. R. Scotch, age 32. Motorman. Family history negative. Past history negative. Patient consulted me in regard to an inflammation of the left eye, which he said was of ten days' standing. He also complained of a lump under the jaw on same side. Stat. praes.

Right eye normal. Left eye vision normal, but both lids much swollen, the upper lid drooping to a marked degree.

The conjunctiva of lower lid and retro-tarsal fold presenting a finely granular appearance, with several large granulations near the inner canthus; the conjunctiva of the upper lid oedematous, but smooth; lid very vascular and bleeds on turning; bulbar conjunctiva not involved; muco-purulent discharge quite profuse, no pain. The sub-maxillary lymph nodes on same side are slightly swollen and hard. This condition, the patient states, came on about the third day after the onset of the inflammation. When next seen, two days later, ptosis was total. Upon everting lower lid, the fold had attained such proportions that it passed over the edge of the cornea. Between the granulations were numerous superficial ulcers, some large, some small. The upper lid was granular, but showed no ulcers. The retro-tarsal fold hung over the cornea like a curtain. The entire bulbar conjunctiva was injected. The muco-purulent discharge had increased and the sub-maxillary lymph nodes were quite large. With the excep-

(3) Centralblatt für Augenheilkunde. 1893. page 112.
(4) Archiv für Augenheilkunde, XXIV. page 60.
(5) American Journal of Ophthalmology. 1898. XV. page 193.
(6) Ophthalmic Record. 1898. VII. page 502.

tion of the discharge, which after a week became scanty, this condition continued for three weeks, old ulcers healing and new ones appearing, the sub-maxillary lymph nodes progressively enlarging and becoming tender.

The process now remained stationary for several days, and the patient disappeared. When seen again, after a lapse of a week, the condition was much worse, the ulcers on the lower lid were numerous; both lids bled even with the most careful manipulation; the retro-maxillary lymph nodes had become involved, the swelling was so great that it extended over the entire side of the face. The pain in the lymph nodes was severe, and mastication and deglutition were so painful that the patient was put upon liquid food. He was having slight chills, with a temperature of 102.5° F. This continued for ten days, when all the acute symptoms subsided, and the disease resumed its former chronic course, with the exception of the ulcers, which entirely disappeared. Notwithstanding active treatment the condition remained the same until about February 1, three and one-half months after the onset, when general improvement began in all symptoms, except those referable to the sub-maxillary lymph nodes. By April 1 the eye and lids had become normal, except a slight ptosis of the upper lid. The retro-maxillary lymph nodes were also normal, but the swelling of the sub-maxillary nodes was increasing, and a slight fluctuation was perceptible, which increased until April 16, when Dr. F. C. Briggs operated and removed two or three ounces of thick, creamy pus. After several days' draining, the wound was allowed to heal, and by June 1 the patient had entirely recovered, but as he had lost twenty pounds in weight during the disease he was sent into the country, where he remained until September 1.

The patient was seen again October 1, by which time he had regained his lost weight, and the only evidence of the recent disease was the ptosis of the upper lid.

During the profuse muco-purulent discharge several cultures were made, and at the height of the disease I removed for histological examination a piece of the lower retro-tarsal fold, on which was situated the first large granulation. These examinations were made by Dr. R. M. Pearce, who reported as follows:

1. Material for examination consists of discharge from conjunctiva received on cover-slips and sterile cotton swabs, and of clippings from conjunctiva.

Smears show numerous pus cells, shreds of mucus, granular material and an occasional coccus. The cocci do not decolorize by Gram's method.

Examination for tubercle bacilli negative.

Cultures on blood serum, plain agar and blood serum agar, show a few colonies of the staphylococcus albus and the pneumococcus.

Histological examination of clipping from conjunctiva shows simple chronic granulation tissue.

2. Material from softened lymph nodes of neck, received in sterile tubes.

Smears show necrotic granular detritus, an occasional pus cell, no microorganisms.

Examination for tubercle bacilli negative.

Cultures on bloood serum, slight growths of the streptococcus pyogenes in water of condensation.

Three guinea-pigs inoculated in peritoneal cavity, with pus from abscess, died within four days of acute peritonitis.

The organisms found in the conjunctival secretion were probably accidental. The pneumococcus was not present in sufficient numbers to bear any causative relation, and the staphylococcus albus, a common inhabitant of the skin, is frequently found on the conjunctiva.

Assuming, as we do, that the infection of the lymph nodes was secondary to the inflammation of the conjunctiva, it would seem to follow that the latter must have been due to the streptococcus also. If so, the streptococcus must have been killed by the treatment with silver salts and bi-chloride before cultures from the eye were made. Two other writers on this subject have reported finding the streptococcus pyogenes in the pus from the eye, or from the inflamed lymph nodes, or both. In all these cases, however, the presence of the streptococcus may have been due to a secondary infection. Considering that the careful investigations carried on by other writers have been without definite results, I am inclined to believe that the germ causing this acute inflammation has yet to be isolated.

Treatment.—In the early stages of the disease 2 per cent silver nitrate was used, not with satisfactory results, however, on account of the vascularity of the conjunctiva. Protargol 2 per cent was substituted and used every second day for four months without any argyria. Bi-chloride of mercury, 1-5000, was used daily. Numerous tonics were tried, but without appreciable result. Following these Fowler's

solution was given in small doses, increasing until the tenth day; after that seven gtts. t. i. d. were given for three months.

This treatment caused a decided improvement in the enlarged lymph nodes (except the sub-maxillary nodes) and in the general condition. During the active inflammation of the lymph nodes cold packs were constantly used. Later on ointment containing 30 per cent of ichthyol was used; and daily massage of fifteen minutes was tried. As this treatment was commenced simultaneously with the arsenic, it is impossible to estimate the amount of value received from it. In another case I would give arsenic from the beginning, as I believe that the inflammation of the sub-maxillary lymph nodes would not have resulted in suppuration had the arsenic been administered earlier.

It seemed from the earliest stages of the disease impossible to mistake it for any other acute inflammation of the conjunctiva, as to me it was a typical case, with one exception, namely, that the sub-maxillary lymph nodes were first involved rather than the pre-auricular, which are the ones usually first involved according to other writers. If we accept the theory of Lavergne and Perrin, that the lymphatics of the inner half of the eyelids pass to the sub-maxillary lymph nodes, and those of the outer half to the retro-maxillary and pre-auricular lymph nodes, it may readily be seen why the sub-maxillary lymph nodes were first involved, for the large granulations were for a time confined to the inner half of the lower lid and fold, and until the granulations and ulcers extended to the outer side of the lid and fold there was no involvement of the retro-maxillary lymph nodes: why the pre-auricular lymph nodes were not involved at any time during the disease cannot be explained.

711 Boylston street.

Boston, Mass., March 8.—Frederick Kensel, of 57 Meecham street, West Somerville, has resigned his cadetship at West Point. Failing eyesight is assigned as the cause. Kensel was appointed by Congressman McCall June 16, 1899. Soon after entering the academy he went to the hospital. It is said that while standing on his head in a tent one day he was kicked in the eye accidently by an upper-class man. Shortly after that Kensel was fed some tabasco sauce. In taking the dose he choked and some of it went on his handkerchief and some of it got into his eyes. It is said that there was a long list of "stunts" which he was compelled to do by upper-class men.

A CASE OF METHYL-ALCOHOL AMAUROSIS, THE PATHWAY OF ENTRANCE OF THE POISON BEING THE LUNGS AND THE CUTANEOUS SURFACE.

By G. E. DE SCHWEINITZ, A. M., M. D.
PHILADELPHIA.

The toxic action of methyl-alcohol in recent times has attracted much attention, and its influence upon the eye has been the subject of many papers and some experimental work. The report of the first case of methyl-alcohol amblyopia is usually attributed to Mengin,[1] but as Harold Gifford[2] points out, Mengin's case had previously been reported by Viger,[3] so that to him really belongs the priority of describing this agent as a cause of amblyopia. The next case[4] on record appears to be one described by Dr. F. Van Fleet,[5] followed a year later by the case of MacCoy and Michael.[6] In 1899 the literature of the subject has been enriched by the cases recorded by Kuhnt,[7] Moulton,[8] Gifford,[9] Callan,[10] Patillo and Casey Wood,[11] J. F. Raub,[12] and others. More recently additional cases of this form of amblyopia have appeared in this country and abroad.

In most of the instances thus far reported the methylic alcohol has been consumed by man as a substitute for ordinary alcoholic drinks. In a few instances, however, for example, the two reported by Patillo

---

[1] Recueil d'Ophthalmologie, 3 serie, 1. 1879. p. 663.

[2] The Ophthalmic Record, VIII, 1899, p. 441.

[3] L'Anne medical, 2, 1877, p. 105.

[4] I think the report of the first case of methyl-alcohol amblyopia in this country was made by Dr. J. M. Ray, of Louisville, Ky. He examined his patient in March, 1896, and described the case to a local medical society at the time, but the report never appeared in any journal. He has been kind enough to send me the notes of this case, and another one that he saw in 1899, which has not yet been published.

[5] Manhattan Eye and Ear Hospital Reports, 1897, Vol. IV, p. 15.

[6] Medical Record, May 28, 1898

[7] Zeitschr. f. Augenheilk., Vol. I, 1899.

[8] The Ophthalmic Record, VIII, 1899, p. 335.

[9] Loc. cit.

[10] Quoted by Ward Holden, Archives of Ophth. XXVIII, 2, 1899, 129.

[11] Ophthalmic Record, VIII, 1899, p. 599.

[12] Ophthalmic Record, VIII, 1896, p. 619.

and Casey Wood, the toxic agent found entrance through the lungs. Sometimes the methylic alcohol has been taken by itself, or diluted with water, and sometimes mixed with other substances. The quantity has varied exceedingly, and it would be difficult to estimate exactly what is the smallest quantity that can produce blindness, or what is the greatest quantity which may be consumed with impunity. It would further seem that patients may be exposed to the influence of methyl-alcohol as it is used in the arts for long periods of time, even for years, without experiencing deleterious effects, and then, apparently without changing their work, become affected. So, also, the patient may drink in moderate quantities of the drug at times, as did Viger's patient, and suffer no ill effects, or at least, no serious inconvenience, but become blind suddenly when on one spree a rather excessive quantity is taken.

Preceding the blindness the following symptoms have been noticed by various observers: Great muscular weakness, defective heart's action, nausea, vomiting, profuse sweating, intense headache, giddiness, coma and delirium. Usually within twenty-four hours, and perhaps earlier, after the methyl-alcohol spree and the subsidence of the symptoms previously described, the patient has noticed obscuration of vision, which rapidly, sometimes within a few hours, as in one case is entirely lost. Under the influence of treatment there may be temporary improvement, which, with perhaps the exception of a single case, is succeeded by return of the blindness. This in most instances has been practically complete, or at least, vision has been reduced to counting fingers. The pupils are widely dilated and irresponsive to light, although they may respond to the convergence and the orbicularis test.

Ophthalmoscopically there have been noted blurring of the edges of the disc, positive optic neuritis with exudations into the retina, and complete atrophy, with great diminution of the calibre of the vessels. The field of vision is contracted, and where it has been sought for carefully in the earlier stages an absolute central scotoma and color blindness will be found. An interesting symptom noted by Gifford and Kuhnt is pain on movement of the eyes, or upon pressing them backward into the orbit.

The orbital pain, the complete blindness followed by marked but temporary improvement, and the positive optic neuritis which has been noted by a number of observers, for example, by MacCoy and

Michael, Hotz, Ray and Gifford, seem to indicate a primary affection of the optic nerve that is to say, a retrobulbar neuritis, a conclusion which is still further established by the presence of the central scotomas which have been noted in at least two of the instances. Ward Holden, however, on the basis of experiments on dogs, concludes that methyl-alcohol causes an amblyopia which depends upon nutritive changes in the ganglion cells of the retina. His observations have been confirmed by Birch-Hirschfeld[1] who uniformly found degeneration of the ganglion cells with breaking-down of the chromatin bodies, development of vacuoles, shrinking of the cell and the nucleus, and finally, destruction of the cell body. F. C. Hotz does not attach a great deal of weight to these experiments, and after describing a case of methyl-alcohol amblyopia which he himself had seen and in which there was well-marked optic neuritis, points out that if the drug primarily affects and directly destroys the retinal elements, it is difficult to account for the temporary return of sight which has been noted in a number of instances, while on the other hand, a violent inflammation of the connective tissue of the optic nerve could primarily prevent the conduction of visual impressions which could subside when the swelling of the nerve subsided, but would again be blocked when the later atrophy came on. Ray, in describing his case, makes a similar suggestion.

It is probable that several substances which have been credited with the power of producing toxic amblyopia depend for their activity upon methyl-alcohol. The investigations of Herbert Harlan[2] strongly indicate if they do not absolutely prove, that all the cases of blindness from drinking essence of ginger, peppermint, etc., have been due, not to the activities of the ginger and the peppermint, but to the methyl-alcohol with which they are mixed.

With this imperfect résumé of our knowledge of methyl-alcohol blindness, I desire to place a case on record which contains a number of interesting features and in some respects differs from any of the cases thus far reported.

John M., married, born in America, aged 39, came to the Jefferson College Hospital on January 4th, 1901, with the statement that he had two weeks previously, after a brief illness, waked up entirely blind.

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[1] Klin. Monatsbl. f. Augenheilk., October, 1900, p. 682.

[2] The Ophthalmic Record, February, 1901.

History.—The patient is a varnisher and painter by trade, but for the last three years has confined his work to the varnishing business. He has always been in good health, and with the exception of the ordinary diseases of childhood and an attack of malaria three years ago has been free from illness. For the past two years he has been subject to attacks of nose-bleed. These, however, never have been severe and have never been followed by any untoward consequences. He uses tobacco in moderate degree, and has also used alcohol. There is no history of syphilis. He is married, and has four living children in good health. His wife is healthy. His father is living, past seventy years of age, and in good physical condition. His mother died when he was a child from apoplexy. He has two brothers alive and one sister, all in good health. For five years he worked in white lead. He has also used what he calls "alkaline," as well as oxalic acid, muriatic acid and bichromate of potash.

For the last three years he has pursued the occupation of a varnisher, and since the introduction of wood spirits, or, as it is ordinarily called in the trade, Columbia spirits, which is a liquid containing about 95 per cent of methyl-alcohol, he has employed this substance in the same way in which turpentine is used in paint, that is to say, the methyl-alcohol is mixed with the shellac in such proportions as may be needed to make it either thick or thin. The patient positively denies that he ever drank any of the wood-alcohol. As he expressed it, "the smell of it was enough." He has frequently, however, when obliged to varnish the inside of small articles of furniture, for example, a closet, become so confused with the fumes that, again to use his own expression, he "staggered like a drunken man." This peculiarity he observed particularly in hot weather. He was accustomed every day to wash his hands and arms and sometimes his face at the close of his labors with wood-alcohol in order to remove the varnish which was sticking to the skin. For two months prior to his attack of blindness he had worked daily as a varnisher, employing the shellac and methyl-alcohol in the manner already described. This is the longest period during which he had pursued this work uninterruptedly; formerly he worked at varnishing for three or four days at a time and then changed to some other kind of labor connected with his trade which did not entail the use of methyl-alcohol. For some time he had noted attacks of misty vision, which usually came on in the evening after leaving the shop, but which always disappeared in fifteen or

twenty minutes. He had especially observed that the lights on the streets appeared blurred during these temporary obscurations of sight.

On the morning of December 22, 1900, after a hasty breakfast consisting only of about a pint of cold milk, he started to his work, but on his road began to feel ill and when he reached his shop he had a chill, so that he was unable to continue his labor. This chilly sensation was particularly manifested in his lower extremities and was followed by numb and shooting pains, so much so that the doctor who was called in told him he had sciatic rheumatism, and in order to relieve him gave him two morphia pills and subsequently a hypodermic of the same drug. The chilliness and pain, however, were not entirely subdued. There was no nausea, no vomiting and no headache. He dozed a little during the day and towards evening fell asleep, waking at midnight, and to his great alarm found himself so completely blind that he could not see the gas light in the room. In the morning a physician was hastily summoned and prescribed for him remedies the nature of which I do not know. The blindness continued absolute, so far as his own observation is concerned, for two weeks, when he reported at the Jefferson College Hospital and was examined by Dr. Howard F. Hansell.

The notes on the book are as follows: Pupils dilated to 6 mm. and irresponsive to light, but reacting to accommodation. Media clear; nerves pale, their outlines distinct; arteries and veins both reduced in size, the latter tortuous and filled with dark blood.

He was immediately ordered pilocarpine, and for fourteen nights in succession was subjected to vigorous sweats. After the second sweat there was a slight return of vision, and by the end of two weeks he was able to distinguish objects so that he could walk alone upon the street. He never, however, recovered sufficient vision to recognize faces. At the end of three weeks this return of vision began to fail until the present time, that is, the 12th of April, 1901, when the blindness again became complete.

Examination.—The patient is a well-built man of the blonde type, with a somewhat pallid skin and a typical amaurotic stare. The circulation, heart and blood vessels appear to be normal and there are no external signs of disease. An examination of the urine yields the following result:

Color: Amber. *Microscopic examination*:
Reaction: Faintly acid. Crystals: None.

Albumin: None.	Amorphous urates.
Sugar: None.	A few epithelial cells.
Urea: 1.9 per cent.	A few leucocytes.
	No casts.

The examination of the blood was as follows:

Erythrocytes: 4,950,000.

Leucocytes: 6,400.

Hæmoglobin: 75 per cent.

Dr. William G. Spiller, who also examined the patient, reports as follows: The knee-jerks, especially the left, are exaggerated. The Achilles jerk is about normal on each side. There is no Babinski reflex, and no girdle sensation exists about the waist. The sense of smell is not impaired. No weakness in the limbs is present, He has no intention tremor and no ataxia. There is no history of brain tumor, i. e., vomiting, headache or vertigo.

Eyes.—V. of R. E. faint light perception in a small area, about 5 degrees in diameter, 20 degrees below the fixing point; the rest of the field is completely dark. The pupil is dilated to 8 mm., and when a beam of light is directed slightly downward and outward through a condensing lens there is just a suggestion of contraction in the iris. When the patient converges to a point a few inches in front of his eyes, there is prompt response both of this pupil and the pupil upon the opposite side. In other words, the convergence reaction is preserved, as is also the reaction on forced closure of the lids, that is to say, the orbicularis reaction. The media are clear, the nerve-head irregularly oval in outline and partially surrounded with a choroid ring. There is a deep physiological cup exposing the lamina cribrosa and the general nerve-head is of a greenish, atrophic color. The arteries are small and are bordered by faint thickening of the perivascular lymph-sheaths. The veins are also somewhat contracted, distinctly tortuous and contain very dark blood. The general fundus gives no evidence of the pathological lesions, except perhaps a slight mottling in the region of the macula. The movement of the eyeball is normal in all directions.

V. of L. E. absolutely gone, not the faintest trace of light perception being demonstrable in any portion of the field. The pupil is dilated like the other one, to about 8 mm., and the iris is absolutely irresponsive to the influence of light, but like its fellow, contracts on efforts of convergence and to the influence of the orbicularis test.

The appearances of the fundus in all respects repeat those upon the opposite side, except that the disc is unsurrounded by a choroid ring. If anything, the veins are a little darker and more tortuous upon this side than upon the opposite, and many of the finer twigs are decidedly twisted.

While of course it is impossible to ascribe this case of sudden blindness with absolute certainty to the toxic influence of methyl-alcohol, this theory affords a satisfactory explanation.

Dr. H. F. Hansell, however, who examined this patient soon after the blindness first began, is inclined to think that a hemorrhage into the chiasm might explain the sudden loss of vision. He is confirmed in this opinion because soon after the amblyopia set in, but when there was still sufficient vision to take a light field, a bitemporal hemiopic defect was evident. There was also at this time slight optic neuritis.

Dr. William G. Spiller, who also saw the case, thinks that this is a possible explanation, but tells me that he knows of no case of hemorrhage in the chiasm with autopsy. The clinical history of the blindness, however, is like that of all other cases of methyl-alcohol amaurosis, that is, great suddenness of onset, complete loss of vision lasting for a given period of time, followed by a partial restoration of sight, to be again succeeded by a return to the original total loss of vision. The visual field defect which Dr. Hansell noted might be explained by an action of the drug on the ganglion cells of the retina.

The prodromal symptoms are somewhat different from those which have occurred in other cases, where usually there has been serious constitutional disturbance, for example, violent headache, unconsciousness, delirium, etc., but it must be remembered that in these cases the agent was taken in large doses into the stomach and produced an acute poisoning and naturally more florid symptoms. In Patillo's patients, who became blind as the result of shellacing beer vats and who therefore inhaled the poison, the symptoms prior to the blindness were not nearly so severe as those which occurred in men who drank the liquid. They did, however, have severe frontal headache, nausea and dizziness. My patient has on frequent occasions, as before noted, had attacks of dizziness, vertigo, and, as he expressed it, "drunkenness," when he has shellaced enclosed spaces, particularly in warm weather, but the interesting point in his clinical history is that although he had for some years been a varnisher and had frequently used methyl-alcohol, he had never worked at his trade for

long periods of time continuously, never more, in fact, than three or four days at a time.

For two months prior to his blindness he had been daily occupied in shellacing and had been constantly exposed, as he expressed it to me, to the fumes of the liquid. He had not, however, for two weeks prior to his blindness had one of his attacks of "drunkenness." I have already pointed out that in addition to his exposure to the fumes, he was accustomed to soak his hands and forearms in the methyl-alcohol for the purpose of getting rid of the shellac stains, and sometimes washed his face in the same liquid. Therefore we may reasonably assume that there was a gradual absorption of the poison, and it is probable that, like many other poisons, it has a cumulative action in the system and finally bursts forth with sudden force. Whether the attacks of blurred sight which he was accustomed to have were prodromal of the ultimate entire blindness I cannot say. He tells me that he knows of another shellacer who was obliged to discontinue his work because of disturbed vision, and who was told that he would certainly go blind unless he found some other occupation which freed him from the influence of methyl-alcohol.

If this case is correctly classified as one of methyl-alcohol poisoning, it has a very important bearing, because it demonstrates that varnishers are liable to a slow poisoning by this drug, which gradually accumulates and finally produces, with great suddenness, complete blindness, just as the drug does when it is consumed in large quantities in place of some other alcoholic drink. In other words, it indicates that varnishers who employ either the methyl-alcohol or the Columbian spirit, are liable to dangers similar to those which surround workers in lead, in india rubber where bisulphide of carbon is employed, and in dinitrobenzol. If this is the case, then it is most important that workmen should be warned of the dangers of these fumes of methyl-alcohol, and also of the dangers of washing their hands, forearms, etc., in the same liquid.

The New York Academy of Medicine.—At a stated meeting of the academy on April 4th, the order was as follows: Subject: "The Duty of the Public to the Medical Profession." First paper by D. B. St. John Roosa, M. D., LL. D.; second paper by W. H. Thomson, M. D., LL. D. Discussion by Drs. A. H. Smith, F. R. Sturgis, A. Jacobi, F. P. Kinnicutt, and others.

LARGE WOUND IN THE SCLEROTIC—LOSS OF VITREOUS—RECOVERY WITH GOOD VISION.

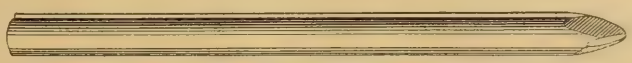
By S. MITCHELL, M. D.

Illustrator, Oculist and Aurist to St. James' Mercy Hospital, Oculist to Erie Railroad.

HORNELLSVILLE, N. Y.

(ILLUSTRATED.)

In nearly all modern works on physiology, under the head of "Physiological Properties of the Hemispheres," when speaking of the well known fact "that they are not, even in man, directly essential to life." The case is related where,[1] "a pointed iron bar, three feet and a half in length, and one inch and a quarter in diameter was driven through a man's head by the premature blasting of a rock. The bar entered the left side of the face, near the angle of the jaw, and passed obliquely upwards inside the zygomatic arch and through the anterior part of the cranial cavity, emerging from the frontal bone at the median line, just in front of the point of union of the coronal and



sagittal sutures." It is further related of the case that, "at the end of rather more than two months; he was well enough to walk about. At the end of sixteen months the wounds were healed, and the patient had recovered his general health, though with the loss of the sight in the eye of the injured side."

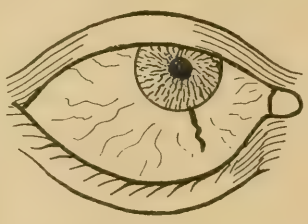
I recall the fact, that during my student days at the New York University Medical College, the occupant of the chair on Physiology was in the habit of relating the foregoing incident at one of his lectures, and then to exhibit a skull (probably not the original) which had a one and a quarter inch perforation in the frontal bone. This was done, no doubt, for the purpose of illustrating to the class, that even an apparently obtuse stonecutter was able to get *something* through his brain almost instantly, while it required several months of steady hammering to force a few plain physiological facts into the cranium of the average medical student.

What the iron bar was to the head of the workman, above referred

[1] Human Physiology for Students and Practitioners, p. 480.

to, the steel spike (the exact dimensions of which are shown in the accompanying illustration) was to the eye of the machinist, whose case is here reported. The eyeball, like the brain, frequently exhibits a surprising tolerance to severe injuries.

Mr. Fred M———, aged 32, a machinist in the employ of the N. Y. and P. Railway Co., residing at Oswayo, Pa., presented himself at my office Oct. 13th, 1899. His right eye had been injured the same morning, while engaged at his work. He had driven a 60 D. wire nail through an aperture in a large bolt, for the purpose of retaining the bolt in place. Then by a well directed blow with a hammer the unused portion of the nail was broken off. This piece flew, striking the eye with sufficient force to penetrate the sclerotic in the upper nasal quadrant. The size and position of the wound is shown in the accompanying



sketch. It was fully one-fourth of an inch long, and extended from the sclero-corneal border upward and inward. There was a slight prolapse of the ciliary bodies at this point, and a large bead of vitreous was protruding from the wound. The eyeball was very soft, showing that considerable vitreous had escaped. The presence of a large quantity of blood in the anterior chamber prevented an ophthalmoscopic examination being made until several days had elapsed. Vision amounted to p. l. Pain was inconsiderable and the eye showed very little evidence of any reaction or inflammation for such a severe injury.

The protruding vitreous was snipped off, the parts replaced and the wound thoroughly cleaned and sterilized. There was perfect coaptation of the edges of the wound so no sutures were inserted. One per cent atropin drops were instilled and the eye dressed with a pad of cotton and roller bandage. The next day there was very little chemosis, the atropin drops and bandage were continued.

The following day the blood had nearly all disappeared from the anterior chamber; vision was $\frac{6}{20}$ + and I was —1. From this date on, recovery was rapid and uneventful.

On Nov. 4th, when patient was last seen, I was normal and vision was $\frac{18}{100}$ +. He returned to his work about this time and was not seen again until Feb. 7th, 1901, when he appeared at my office for the purpose of having a pair of glasses fitted.

The appearance of the left eye was perfectly normal. Pupil reacted perfectly to light. A faint dark line was just discernible that marked the site of the wound.

The ophthalmometer revealed 3 D. of astigmatism, axis 120°, vision = $\frac{18}{70}$, J. 7 was read imperfectly. With — 125 cyl., ax. 155°, vision = $\frac{18}{20}$, and J. 1 at 8 and 15 inches. This lens with the proper correction for the right eye, was prescribed for constant use. The astigmatism was undoubtedly produced by the wound. The fact that the most perfect acuity of vision was obtained by the use of a minus cylinder, with the axis of 155° instead of at 30°, is quite remarkable. I was unable to secure any satisfactory result by skiascopy. This might shed some light on the matter.

The members of the Attending, Assistant, and Resident Staffs of Wills' Hospital in Philadelphia have recently formed themselves into an association known as the "Wills' Hospital Ophthalmic Society," the object of which is to "Promote the scientific usefulness of the institution by the discussion of papers and the exhibition of patients who have been under the care of the members of the Attending Staff." Bi-monthly meetings will be held and reports of the proceedings will be published regularly in various medical journals.

Seven Thousand Dollars for the Loss of an Eye.—The Court of Civil Appeals of Texas, says, in the case of the De La Vergne Refrigerating Machine Company vs. Stahl, that the verdict here returned of $8,000 is much larger than that in any case which it has been able to find, or which counsel seem to have been able to find, involving the loss of an eye, with the usual consequences of such injury. Here the party seeking to recover damages therefor was a young man, a mechanic, 24 years of age, when hurt. And while the court considers $8,000 an excessive compensation in such a case, it holds that the loss of an eye is a serious injury, and says that it will affirm the judgment if a remittitur of $1,000 be made from the $8,000.

THE THEORY OF THE VICARIOUS FOVEA ERRONEOUS.*

By FREDERICK HERMAN VERHOEFF, M. D.

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From time to time there appear recorded cases of manifest squint in which the diplopia tests indicate orthophoria or perhaps a squint of an opposite kind. Such cases are often not recognized until after operation, when the patient begins to complain of diplopia of such a kind as to indicate that the squint is much over-corrected, although to all outward appearances there may be a considerable amount of the original squint remaining. C. H. Thomas[1] reported three cases of this kind and in the discussion that followed Theobald and Randall each stated that he had seen a similar case. Von Graefe[2] seems to have been the first to observe this paradoxical diplopia in cases that had been operated upon, while according to Tscherning[3] in cases not operated upon it was first studied by Javal. Recently I have met with it in a case that afforded exceptional opportunity for investigation, both on account of the intelligence of the patient and on account of the high visual acuity in each eye.

The case is that of Mr. M———, a student in the senior class of the Harvard Medical School. Mr. M——— tells me that so far as he knows he has always had a slight convergent squint. Ten years ago a tenotomy was performed on the internal rectus of each eye, but he thinks the squint was not greatly reduced in amount by the operation. Within the past three or four years he has begun to notice that he used sometimes one and sometimes the other eye, but for the microscope, and in fact for most purposes, he preferred to use the left eye. On my asking him to try to fix with either eye at will, he found, for the

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* Read before the New England Ophthalmological Society, March, 1901.

[1] C. H. Thomas. Strabismus with Anomalous diplopia. Trs. Amer.--Oph. Soc. 1894, p. 181.

[2] Von Graefe. Ueber doppelsehen nach Schiel--Operation und Incongruenz der Netzhaüte. Arch. f. Oph. 1854, 1, 1, p. 95.

[3] Tscherning. Physiologic Ophics (Trans. by Weiland), 1900, p. 334.

first time, that he was perfectly able to do so. I found that without a mydriatic his refraction was:

O. D. = +3 s ◯ +1. cyl., ax. 103°.

O. S. = +2·5s ◯ +1.25. cyl., ax. 50°.

The vision in each eye was $\frac{20}{15}$.

His refraction under homatropine corresponded closely with the above and indicated about 1.50 D more hypermetropia than the correction he was wearing. Ophthalmoscopic examination revealed nothing abnormal in either eye.

The muscle tests resulted as follows:

1. The objective cover test showed 25° of esotropia.

2. The subjective cover test (parallax test) indicated orthophoria, but the patient could notice no change in the positions of the images until a prism of at least 6° was used.

3. The diplopia test usually gave orthophoria, but occasionally there was a slight variation from this condition.

4. The Maddox rod test indicated 4° of esophoria. At first it was impossible to make this test satisfactorily, because either the light or the streak, when they came near to one another, would disappear, but finally after much practice this suppression ceased to occur and the streak was made to go exactly through the light.

5. A red glass placed before one eye sometimes brought out two images, which appeared in the same place.

6. Prisms either base in or out produced diplopia, the diplopia being most distinct when a prism of 25° base out was used, although this brought the two images exactly upon the two foveae. None of the tests indicated an appreciable hyperphoria.

It will be seen that while the objective tests indicated an esotropia of 25° the subjective tests indicated orthophoria. The Maddox rod, it is true, gave 4° of esophoria, but this is not infrequently done in cases of orthophoria.

Cases similar to this, so far as I know, have always been explained by assuming the presence of a so-called vicarious fovea. Von Graefe suggested this explanation as possible, but he did not seem entirely inclined to accept it. He was unable, however, to offer a more satisfactory one. Tscherning accepts without reservation this view in regard to them. According to this theory, there is developed in the squinting eye a new physiological fovea for binocular vision at a point which ordinarily receives the same image as does the true fovea in

the other eye. This involves the idea that not only is the old system of corresponding points non-existent, or at least in abeyance, but that a new system is established to replace it. If it could be proved it would strongly support the empiristic theory of binocular vision so forcibly urged by Helmholtz.

The case of Mr. M———, it seems to me, absolutely disproves this theory. To maintain such an assumption it evidently would be necessary to prove (1), that suppression did not take place after the new fovea was established, and that the patient was actually able to fuse images situated upon the true fovea in one eye and the vicarious fovea in the other; (2) that the patient possessed to a certain extent the perception of stereoscopic relief, and finally (3), that the vicarious fovea had a fixed retinal position. I have carefully examined the eyes of Mr. M——— with regard to these points, and feel sure that in his case none of them can be established, but, on the contrary, that they can be disproved. For this purpose the following tests were made:

(1) *Tests to determine the tendency to suppress and the power to fuse.* The bar reading test gave negative results. If a pencil or a similar object was held before the fixing eye it always cut out a portion of the visual field. This was the case even when so simple a test-object as a horizontal line was viewed. This indicated suppression on the part of the squinting eye, and hence absence of fusion. The same thing was shown in another way by the fact that the patient could see in a stereoscope but one-half of a haploscopic figure.[1] In this connection it should be noted also that the patient seemed to have no combining power whatever. For instance, if a 6° prism, base in or out, was placed before the squinting eye while the latter was screened, on removing the screen no corrective motion could be observed. Often, but not always, this maneuver would produce diplopia. The readiness with which suppression occurred rendered the subjective estimation of the combining power uncertain. When the two images of an object approached each other one of them finally would mysteriously disappear without giving rise to the idea that it had fused with the other.

(2) *Tests to determine the perception of stereoscopic relief.* The

[1] It should be borne in mind that while these two tests, and tests similar to them, show whether or not the patient is suppressing during the tests, they do not necessarily demonstrate either the absence or the presence of the perception of stereoscopic relief, that is, of true binocular vision.

patient was asked to place a pencil upon a table in front of him so that it should point straight forwards. While he kept his attention directed upon one end of the pencil a screen was suddenly placed before the right eye. This had no effect upon the apparent position of the pencil, whereas in the case of normal stereoscopic vision the pencil should apparently rotate to the left. A similar but more delicate test, made by means of the stereoscope, gave the same result. In the latter test the pencil was replaced by two lines which slanted equally, but in opposite directions from the vertical. To the patient, stereoscopic pictures meant no more when viewed with both eyes than when viewed with one. Hering's test, made by having the patient look through a black box (a camera) at a vertical thread and then estimating the positions of beans dropped at varying distances in front of and behind the thread, indicated that the perception of stereoscopic relief was entirely wanting. In this test the patient could localize the bean no more correctly with both eyes than with one. He could not approach the accuracy with which I localized the bean when I used both eyes, for in this case I was never in doubt and never made a mistake. When I used one eye only I was always in doubt as to the position of the path of the bean, while Mr. M———, no matter whether he used one or both eyes, always had a very positive idea as to its position, although in the great majority of instances his judgment was entirely incorrect. Several other tests were made, but it is hardly necessary to describe them here. It is sufficient to say that they substantiated the tests just mentioned.

(3) *Tests to determine the constancy of position of the so-called vicarious fovea.* Although the amount of squint varied with the amount of convergence, the diplopia test always gave practically the same result, thus indicating that the so-called new fovea was not constant in position. For instance, at a short distance from the eyes the objective cover test gave only 10° of esotropia, but the diplopia test still gave orthophoria. If an object was brought up sufficiently close to the eyes a point could be reached at which both the objective and the subjective cover tests showed that the retinal images of the object occupied the two foveae. Under these conditions the object was not seen double, although, as already stated, in the case of distant objects, diplopia was most marked when the two foveae were occupied by similar images. The absence of diplopia here, however, was in all probability not due to true binocular fusion, for the bar reading test still indicated sup-

pression of one of the images, and an absence of combining was demonstrated just as in the case of distant objects. If the object was brought still closer to the eyes it was seen as two heteronymous images.

The fact that in this case there is an entire absence of stereoscopic vision and, most important of all, the fact that it would be necessary to assume that the so-called vicarious fovea changed its retinal situation for different positions of the eyes, seem to prove conclusively that the theory of a vicarious fovea is erroneous. The true explanation of paradoxical diplopia seems to me to lie in the absence of the function of binocular vision. This would mean, of course, that, physiologically considered, the two retinae were no longer related according to the law of corresponding points. To make this conception clear I shall assume that normally there are three centers, almost entirely distinct from each other, namely, one for the binocular perception of relief and two for monocular vision, one of the latter corresponding to the right and the other to the left eye. It will be seen that on the basis of such an assumption it is simply necessary to assume further that the binocular center is either congenitally absent or that it has been retarded in its development, not only to explain the paradoxical diplopia and the so-called vicarious fovea, but to explain in great part the existence of the squint itself. Thus, if we imagine the binocular center to be out of function, the power of fusion will necessarily be wanting, and there will be nothing to keep the eyes in their proper relation with each other, thereby allowing insufficiencies of the muscles, dependent, no doubt, in this case upon hypermetropia, to manifest themselves. The monocular centers, however, being perfectly normal, the image pertaining to each eye will be projected in a more or less perfect manner; that is, there will be, not binocular, but double monocular localization. Thus, in the present case, while Mr. M——— is fixing a distant object with his left eye, his right eye is turned in 25°, but this prevents him from localizing correctly with his right eye no more than it prevents a one-eyed man from localizing correctly when this one eye is turned in. Since Mr. M——— localizes equally well with either eye, the image pertaining to each must, under usual conditions, always be projected to the same place, and this is, in fact, the case. It is impossible, however, for him to fuse the two images, because he has no well-developed center for this purpose. And it has already been shown that in reality he never fuses the two images, but that in ordinary vision he suppresses one of them.

The conditions, however, are different when a strong prism is placed before one of the eyes. In this case the projection of the eye before which the prism is placed becomes erroneous with regard to the real object, and the two retinal images are localized at entirely different places. Since the two images do not interfere with one another it is evident that there would not be the same tendency to suppress either of them, as in the case of ordinary vision, and they could be more readily recognized as two. If the prism is of 25° and placed base out, the two images must fall upon the two real foveae, but they are falsely localized so far as the actual object is concerned, and hence appear about 25° apart. The estimation of the distance between the images is not exact, because it is dependent, not upon corresponding points, but upon muscular sensation. It seems to agree, however, very closely in exactness with the estimation of the displacement caused by prisms when one eye alone is used. The fact that the so-called vicarious fovea changes its position as the test object is brought nearer to the eyes, is readily explained on the assumption that each eye continues independently to localize more or less correctly its own image, even when the positions of the two eyes relative to each other has changed. When, however, the test object is brought quite near to the eyes it is seen double, owing, no doubt, to the fact that perfect localization is no longer possible. The diplopia that occurs after operation in these cases is evidently due to the fact that the eye upon which the operation has been performed no longer localizes correctly. The operation really produces the same effect as the addition of a prism.

What at first sight appears strong evidence in favor of the theory of the vicarious fovea is given by Tscherning, who states that in certain cases a period may be reached after operation during which the patient may localize with reference to both the new and the old fovea, binocular triplopia thus being produced. The phenomenon of binocular triplopia, however, can be explained equally well by assuming that before the two monocular centers have learned to localize according to the new positions of the eyes, the binocular center begins to take up its work again. As a result each of the three centers localizes its image in a different place, thus giving rise to the idea of three separate images.

In most of the cases of paradoxical diplopia reported the squinting

eye when used alone has always fixed with the true fovea. Von Graefe,[1] however, described a case in which the squinting eye continued to keep its eccentric position even in monocular vision. Von Graefe thought that if a vicarious fovea ever existed, which he seemed to doubt, it was certainly present in this case. Even here, however, such an assumption is entirely unnecessary, for it is obvious that the explanation just given suffices also for this case. It is simply necessary to assume in addition that the vision in the macular region is impaired, probably congenitally defective. This would prevent entirely the development of the function of binocular vision and permit the eye to squint. Since the anatomical fovea could not be used, the squinting eye would naturally develop the best vision in the most convenient place. According to this there would indeed be a new fovea formed, but this would be only for monocular and not, as Von Graefe thought, also for binocular vision. Until, however, the perception of stereoscopic relief is demonstrated, by careful tests, to be present or absent, it seems to me unjustifiable to draw any definite conclusions in regard to cases of this kind.

I desire to emphasize the fact that I do not report this case as anything of extreme rareness. On the contrary, I think that if carefully searched for, cases of this character would not prove to be so rare as is generally assumed. Tscherning does not seem to consider them at all unusual. In many cases the reason the phenomenon is not observed is due no doubt to the fact that one eye has become amblyopic. In many other cases it is probably due to the fact that the difficulty in producing diplopia prevents suitable subjective tests being made. My object in reporting the case has been rather to offer a simple explanation of a phenomenon that heretofore has evidently been considered paradoxical.

[1] Op. Cit., p. 105.

Disease Spread by School Slates.—The spread of disease has been attributed to the use of slate and pencil in schools. Boiling in a solution of sodium carbonate has been done to prevent this. The disinfection of books is more difficult, though of more importance. For this purpose the Washington Lyons apparatus is used. Lead pencils should not be used during an outbreak of contagious disease nor should any papers be carried home by the children.

ABSTRACTS

FROM CURRENT OPHTHALMIC LITERTURE.

By G. E. DE SCHWEINITZ, M. D. AND C. A. VEASEY, M. D.

The Use of Suprarenal Extract in the Treatment of Fruehjahr's Catarrh.—Perret (*La Clinique Ophth., Nr.* 1, January, 1901, *Abstract in Wochenschr. f. Therapie u. Hygiene des Auges,* February, 1901) employs suprarenal extract in a collyrium in the treatment of Fruehjahr's catarrh. It must be frequently instilled in order to produce a lasting anaemia of the conjunctiva. Under this treatment all pain rapidly disappears and the hypertrophies at the limbus, the ptosis and the hyperaemia of the eye vanish. The papillary hypertrophy of the conjunctiva-tarsi, it is true, remains, but after the employment of this therapeutic measure, and even in warm weather, no longer produce discomfort.

Concerning Subconjunctival Injections.—E. Haitz (*Klin. Monatsbl. f. Augenheilk.,* February, 1901), after an elaborate review of the literature of this subject and the report of numerous cases from his own experience, comes to the following conclusions: We possess in subconjunctival injections an energetic therapeutic measure in many diseases of the eye. These injections are, in the first place, indicated in vitreous opacities and in exudations in the fundus, especially in central choroiditis. They serve a good purpose in subconjunctical ecchymosis. They should be tried in all cases of traumatic (post-operative) infection. Subconjunctival injections are harmless and in general painless, provided one uses a weak solution of a non-irritating substance. In general terms, a 2-per-cent salt solution should be given the preference. If a specific mercurial action is required in place of sublimate, cyanide of mercury should be employed.

Arthritic Oedema of the Eyelids.—Trousseau (*Archives d'Ophtal.,* February, 1901), after referring to the fact that a certain number of cases of acute oedema of the eyelids which are unassociated with any particular cause and which receive the name "essential oedemas," and are considered to be of a vaso-motor origin, states that in his opinion they are frequently arthritic in origin, that is, rheumatic or gouty. These oedemas appear and disappear quickly, without prodromes and without fever. They do not last many days or hours, and relapse with

great facility. They are not associated with any general or local affection, and particularly they are not coincident with renal or cardiac lesions. He reports several cases corroborative of this opinion.

(A case recently under observation exactly confirms Trousseau's belief. The patient was a young woman, who presented herself with an acute oedema of both lids upon the right side, associated with pain on movement outward and tenderness over the external rectus. All symptoms rapidly disappeared under the administration of salicylate of sodium.—G. E. de S.)

Death After the Operation of Extraction of Cataract.—Trousseau (*Annales d'Oculistique,* March, 1901) remarks that although the operation of cataract itself cannot produce a fatal termination, it may be the exciting cause, especially in old and feeble people. He refers to several cases which have been reported in literature, notably those of Webster, Fromaget and Motais, and records his own experience. Death may occur from pulmonary congestion, apoplexy and suppression of urine, and he thinks that if after an operation upon an aged subject delirium sets in, or great restlessness, and especially if the tongue is dry and the quantity of urine diminished, these symptoms should cause the greatest alarm and the most active therapeusis.

Extirpation of the Superior Cervical Ganglion of the Sympathetic in the Treatment of Glaucoma.—Ziehe and Axenfeld (*Sympathicus-Resektion beim Glaukom, Halle, a. S.,* 1901), after an admirable discussion of this subject and a complete analysis of the literature and the cases reported up to date, come to the following conclusions, which, somewhat condensed, are here reproduced:

Extirpation of the sympathetic, that is, extirpation of the superior cervical ganglion, as well as resection of the sympathetic nerve, in the hands of competent surgeons is a comparatively safe procedure. Among seventy-four cases of glaucoma submitted to this operation there was only one fatal result. Detriment to the eye is up to this time not positively proved.

(2) If the material at present available does not suffice to pass judgment upon the durability of this procedure, it still permits it to be said that a certain number of glaucomatous eyes can be improved for many months by such resection, while in other cases a checking of the process seems to have been obtained. It is quite impossible to prophesy that extirpation of the sympathetic will be of advantage in each case,

but it is not certainly proved that it will occasionally do harm. When the operation has been followed by a good result this in the majority of cases has remained, whether permanently or not cannot be stated. It is rare that a primary improvement gives place to a later relapse.

(3) Referring to the different forms of glaucoma, the following may be stated: (a) In acute inflammatory glaucoma resection is to be rejected, except when iridectomy is declined, or when on the first eye the operation has resulted badly; that is to say, when, in spite of the iridectomy, the glaucoma continues or relapses. (b) In hemorrhagic glaucoma resection is a proper procedure. How much it will help must be ascertained by later observations. (c) In chronic inflammatory glaucoma and in simple glaucoma a number of good results have been observed. Resection is therefore worthy of recommendation as a supplement to iridectomy in progressive cases.

(4) Extirpation of the sympathetic for non-iridectomized eyes is, in general terms, not suitable. Resection should not, even in chronic and simple glaucoma, supplant iridectomy. Iridectomy holds the first therapeutic place. Extirpation of the sympathetic without previous iridectomy appears permissible only when iridectomy or sclerotomy is refused, when iridectomy has resulted unfortunately in one eye, in hemorrhagic glaucoma, in those cases of simple glaucoma where a very great disturbance of vision already exists; and perhaps also in hydrophthalmos, although in this disease multiple sclerotomies are to be considered.

(5) In absolute glaucoma extirpation of the sympathetic is indicated only when the blindness has existed for a short time, or when the disease is affecting the last eye. If complete blindness has existed several weeks, and severe pains are present, enucleation is indicated, and only when this is declined extirpation.

(6) Inasmuch as after extirpation glaucoma continues in some cases, and furthermore, as inflammatory attacks may appear after this operation, it is wise in the after-treatment to continue myotics.

(7) Whether extirpation of the sympathetic can prevent glaucoma has not been safely established.

(8) Anatomical examination of the excised ganglia shows changes which, while not characteristic of glaucoma, are worthy of further investigation.

(9) The final conclusion is that in all cases of glaucoma in which our hitherto employed therapeutic measures are not effective extirpation

of the cervical sympathetic is a measure justifiable and worthy of employment, even if improvement is not certainly to be expected from the operation.

Concerning the Westphal-Piltz So-Called Paradoxical Pupil Phenomenon.—Antal *(Neurol. Centralbl.,* 1900, *No.* 4, *Abs. Wochenschrift f. Therapie und Hygiene des Auges,* January 10, 1901) examined forty-eight persons with this pupillary phenomenon, among them being five in good health. He found that after orbicularis closure upon opening the eye the pupil was first contracted then dilated. This was found to be the case in facial paralysis, in combined facial and oculo-motor paralysis (on the healthy side), in progressive muscular atrophy, hemicrania, paralysis agitans, neurasthenia, chorea, disseminated sclerosis, athetosis, chronic gastritis and in three cases of tabes Sluggish contraction and dilatation occurred in one of the latter cases and also in a case of progressive paralysis, three cases of epilepsy, one of hysteria, one of hystero-epilepsy, two of ophthalmic goitre, one of night terrors and in five healthy cases.

After opening the eyes there was immediate dilatation of the contracted pupil noted in the case of headache and trigeminal neuralgia, in two cases of facial paralysis, two cases of hystero-epilepsy, three cases of tabes, one of hysteria and one of hystero-mania.

Upon straining the orbicularis the pupils that were already contracted, upon relief of the tension, contracted still more in the following cases: One of bilateral facial paralysis, neurasthenia, hemicrania, chorea, athetosis, multiple sclerosis, rheumatism, chronic gastritis; two of epilepsy, two of progressive muscular atrophy; two of exophthalmic goitre, in night terrors and in five healthy individuals.

After relief of the tension the contracted pupil immediately dilated in the following: In ulnar and facial paralysis, in combined facial and oculo-motor paralysis (upon the healthy side), in trigeminal neuralgia, cephalalgia, paralysis agitans, hystero-mania, hystero-epilepsy, chronic gastritis, four cases of tabes, one of epilepsy, one of progressive paralysis (in the eye in which the light reaction was present). Both orbicularis closure and orbicularis tension-phenomena were absent in total oculo-motor paralysis, atrophy, mydriasis, multiple sclerosis and in two cases of progressive paralysis.

Conclusions: 1. The orbicularis tension-phenomenon is more certain than the orbicularis closure-phenomenon. 2. The Westphal-Piltz

pupillary phenomenon may be present both as a prodromal manifestation when there is still good reaction to light as well as a late symptom in pupils no more reacting to light, convergence or accommodation.

Antal, in explanation of these paradoxical manifestations, assumes that the sphincter of the iris working together with the orbicularis may, upon sufficiently strong stimulus, contract still further, though it reacts no longer to light.

Katharol in Diseases of the Eye.—Daxenberger-Regensburg (*Wochenschrift für Therapie und Hygiene des Auges,* January 3, 1901) describes katharol as a 3-per-cent permanent solution of hydrogen dioxide which is bactericidal, cleansing and hæmostatic. He has employed it for loosening the crusts in eczema of the lids and lid margins and for making topical applications in full strength in corneal ulcers and conjunctival affections with excessive secretion. As a wash he recommends it very highly in those cases in which there is a tendency to agglutination of the lids, in marginal blepharitis, conjunctivitis, ophthalmia neonatorum and hypopyou keratitis. It is odorless, non-poisonous and painless when applied in full strength, but it is recommended in the strength of twenty to thirty drops in a wineglassful of boiled water, the temperature to vary from that of the room to lukewarm, according to the necessities of the case under treatment. The advantages claimed are that it is an excellent disinfectant, possessing loosening qualities, and that it is non-irritant and inexpensive.

Observations Concerning the Diplo-Bacillus Conjunctivitis in the Royal University Eye Clinic at Bonn.—Nedden, after referring to the work previously recorded (*Klinische Monatsblätter f. Augenheilkunde,* January, 1901) in literature concerning diplo-bacillus conjunctivitis adds some observations of his own. The secretions from all inflammatory cases presenting themselves at the clinic are always examined. In many of the cases of diplo-bacillus conjunctivitis in which the discharge was profuse but few bacilli were found; on the contrary, in many cases with scanty secretion large numbers of the micro-organism were readily detected. As a rule a cover glass preparation is sufficient for diagnosis, but occasionally some difficulty is experienced in differentiating from ozaema and Friedlander's pneumonia bacillus. By most authorities the capsule is given as the differentiating point, it being absent in the diplo-bacillus, but according to Gifford, and possibly Axenfeld, the latter does possess a capsule. Occasionally retraction of

the coagulated secretion in an isolated bacillus presents the appearance of a capsule. Most observers agree that the length of the bacillus is 2 microns and the breadth 1 micron, though occasionally they are found somewhat smaller. Sometimes acute cases are seen bearing great similarity in the clinical appearances to pneumococcus or Koch-Week's conjunctivitis. The angles of the lids and the palpebral borders were not always found inflamed, as stated by some observers. The transmissibility was proven in many cases. The author believes that there is a blepharo-conjunctivitis markedly resembling the diplo-bacillus conjunctivitis not due to the diplo-bacillus, and that many of the complications frequently encountered are coincident on account of the wide distribution of the disease. Occasionally corneal complications in the form of infiltration and superficial vascularization are encountered, but it is believed that the diplo-bacillus has been found because it was present in the conjunctival secretion. In thirteen cases of serpiginous ulcers pure cultures of the pneumococcus were found in one, pure cultures of the diplo-bacillus in another, and in the remaining eleven both the pneumococcus and the diplo-bacillus were found. The clinical picture was in no way influenced by the presence of the latter micro-organism. Contrary to the investigations of Biard, who found the diplo-bacillus in the nose in twenty-eight out of thirty cases, Nedden has never found it in the secretion from the nose or lachrymal duct. Collyria of the zinc salts gave the best and quickest therapeutic results.

Trip to the Yellowstone Park for Members of the American Medical Association.—The special train, or trains, will leave St. Paul on the afternoon or evening of the fourth day of the Association meeting, Friday, June 7, the trip taking about thirty hours. As President McKinley and his party are to be at the Park a day or two preceding our visit everything will be in a most promising condition. The total expense of the trip will be $85, which includes railroad fare, sleepers, hotel expenses and conveyances through the Park. The total time occupied will be between eight and ten days from St. Paul. The rate is remarkably low when it is considered that the regular charge for the five and one-half days in the Park is $49.50. Those desiring to take the trip are requested to notify Dr. J. F. Fulton, St. Paul, Minn.

REPORTS OF SOCIETIES.

WILLS' HOSPITAL OPHTHALMIC SOCIETY.

Meeting held in Philadelphia, 8th of April, 1901.

Dr. Conrad Berens in the chair.

Rubelliform Eruption in Interstitial Keratitis with Acute Articular Rheumatism.—Dr. McCluney Radcliffe exhibited a child of eleven years of age suffering from interstitial keratitis associated with acute articular rheumatism, upon whom a typical form of rubelliform eruption suddenly appeared during the night of the nineteenth day of the patient's residence in the hospital. With the exception of the hands and feet the eruption extended over the entire body. Temperature, which had arisen to 101°, later arose to 104°. No catarrhal symptoms or signs of poisoning were present. On the fifth day temperature fell to normal and the skin-surface became clean. There was not any desquamation. Therapeutically, an atropine solution of four grains strength had been used in each eye twice daily from the date of the admission of the case to the house to the time of the appearance of the eruption. Mercurial inunctions in association with the internal administration of salicylate of sodium were also employed.

Drs. Radcliffe and William H. L. Hale thought the case one of anomalous measles, while Dr. Conrad Berens tended to the opinion that the condition was dependent upon gastro-intestinal toxemia, which was possibly due to a drug; quoting the late Dr. Alfred Stillé concerning rubella sine catarrha, which had no connection with measles. From a review of the literature of the subject Dr. Clarence Van Epps believed that of the three drugs given in the case mercury would be the one that was the most probable causative factor in the production of the rash, but stated that rubella could not be excluded.

Traumatic Hyperexotropia.—Dr. Radcliffe showed a case of traumatic hyperexotropia which was relieved of all diplopia, except a slight residual amount that was exposed on extreme rotation of the eyes down and up, by a tenotomy of the superior rectus of the deviating eye. The double vision had immediately followed a blow from a boxing glove four months previously, and had constantly persisted. Just before the

operative procedure the perimeter gave evidence of eighteen degrees of hypertropia with six degrees of esotropia.

Dr. Berens remarked on the rarity of such a result of traumatism. Dr. William Zentmayer referred to a case that had occurred in Dr. William F. Norris' clinic in which the pulley of the superior oblique muscle had been torn loose, but in which the diplopia had been relieved by a tenotomy of the inferior rectus muscle of the fellow eye.

Postneuritic Optic Atrophy from Probable Cerebellar Growth.—Dr. Samuel D. Risley showed a case of postneuritic optic atrophy occurring in a white male of forty-one years of age. Six days previous to the patient's admission to the hospital vision suddenly failed, followed by complete permanent blindness in three hours' time. When first seen the pupils were widely dilated and the irides were inactive. The optic nerve heads were swollen to over four diopters. There was complete absence of other abnormal subjective or objective signs. Twelve days later marked atrophy of the nerve heads appeared. The patient remained under observation for a period of five months without the development of anything.

Owing to the absence of other symptoms than the ocular ones and as the result of a careful exclusion of all toxic and constitutional causes, Dr. Risley believed that a positive diagnosis of the cause was impossible, though he leaned towards the probability of cerebellar tumor.

Dr. William Thomson thought that meningitis should be considered as the most probable cause. Dr. Van Epps spoke of the so-called "silent areas" of the brain (the frontal and the tempero-sphenoidal lobes and the cerebellum), and considered cerebellar growth as the most likely diagnosis.

Neurepithelioma.—Dr. Charles A. Oliver reported a case of so-called glioma retinæ, with extension along the retrobulbar portion of the optic nerve rendering this portion of the nerve hard and board-like, and said that differential studies were in process in order to determine whether the case belonged to that particular class of new growths described by Flexner as neurepithelioma.

Sarcoma of the Orbit.—Dr. Oliver also reported a case of orbital sarcoma with lymphoid extravasations into the surrounding sinuses, thus producing shadows by electric transillumination which at times might give rise to a faulty diagnosis. The interesting point of the case was the extent to which caries of the orbital walls with involvement of the surrounding sinuses had progressed without producing much ocu-

lar disturbance; the patient at the time of operation for evisceration of the orbit possessing a vision of one-eighth normal, with an eye that was proptosed down and out.

Buphthalmos.—Dr. George C. Harlan showed a buphthalmic eye removed on account of pain from a nine-year-old child, the condition having been the result of a purulent conjunctivitis. The globe measured forty-one millimeters in its anteroposterior diameter and thirty-three millimeters in its vertical meridian. The corneal diameter equaled twenty-seven millimeters. The weight of the eyeball was one hundren and twenty grains. Dr. Oliver showed two microscopic sections of a myopic eyeball in which the anteroposterior diameter equaled forty-three and a half millimeters, the vertical and corneal diameters not being so great as those in Dr. Harlan's case. The point of interest in Dr. Oliver's case consisted in the intimate adhesion of the iris at its root to the periphery of the cornea, which most probably was the main indirect cause of the hyperdistension of the eyeball from long-continued low grade inflammatory hypersecretion.

Evisceration of the Orbit for Carcinoma.—Dr. Thomson reported a case of evisceration of the orbit for a residual papillary carcinoma in a white male of twenty-nine years of age, the primary growths of the outer canthus and the globe having been removed two years previously by an associate at the hospital. The second operation was attempted much as a palliative one, in order to relieve the intense pain that had been produced by the pressure of the imprisoned tumor. The patient was much bettered and out of bed the third day after the operation.

Mules' Operation.—Dr. Oliver showed a practically healed case of Mules' operation done five days previously, and stated that in his experience the average time in the hospital for such cases was about seven days. He again took occasion to emphasize the importance of the value of firm compress bandages during convalescence.

SECTION OF OPHTHALMOLOGY.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting April 16, 1901. Dr. Wm. Thomson, Chairman, presiding.

Dr. C. A. Veasey exhibited a male patient, 26 years of age, with *Right Oculo-motor Paralysis and Left Trifacial Paralysis,* involving both the sensory and motor tracts, together with some impairment of the right knee-jerk. The paralyses were complete, and had been pre-

ceded by considerable ciliary pain, described as being behind the eyeballs. At the time of the appearance of the paralyses there was some difficulty in passing the urine, a soreness and "pulling" behind the knees, which made walking painful, considerable vertigo, and some headache, though the last was by no means pronounced. There had also been slight staggering at times. The case was thought to be one of cerebro-spinal syphilis with meningeal involvement, probably most marked at the base, in the interpeduncular space, and over the pons.

Dr. Geo. C. Harlan exhibited a case of *Abscess of the Orbit from Disease of the Ethmoid; Curetting through the Orbit and Drainage through the Nose.* The patient had had nasal catarrh for more than a year, with caries of the turbinated bone. The eyelids were swollen and there was a high degree of exophthalmos. Incision below the upper margin of the orbit gave exit to a quantity of pus. No dead bone could be detected with the probe at the time, but some days later caries of the inner wall of the orbit was discovered. An incision was made along the upper margin of the orbit and side of the nose, the flap turned down, and the periosteum stripped from the inner wall and half of the roof of the orbit. The os planum was found to be necrosed. The dead bone was removed with cutting forceps, and the ethmoid curetted. A rubber drainage-tube was introduced from the nose into the orbital cavity and held in place by a fine silver wire passed through the skin at the root of the nose, and the wound was closed with sutures. The abscess cavity was cleansed through the tube with dilute peroxid of hydrogen. This is the operation recommended by Jansen, except that the cavity is drained and syringed instead of being packed.

Discussion.—Dr. Ziegler mentioned a case of ethmoiditis, following erysipelas, in which there was cellulitis and edema with intense exophthalmos, but no inflammatory disturbance of the eyeball. The mucocele was evacuated intranasally under cocain and adrenalin, and the swelling rapidly subsided. An odd feature of the case was the blindness of the eye of the affected side, with no ophthalmoscopic changes. There had been no recovery in vision since. Dr. de Schweinitz referred to several cases in which he had operated in the same manner alluded to by Dr. Harlan. He did not consider that the cutting of the oblique muscle necessarily caused subsequent interference with the movement of the eyeball, as the tendon might reattach itself. In one instance he had completely cut away the pulley with some carious bone. Many of the cases of ethmoiditis are mistaken for dacryocystitis, a case of this

character having come under his observation a few days since. He emphasized the importance of intranasal applications to the anterior ethmoidal cells and upper portions of the air-passages in conjunction with other forms of treatment. Dr. H. F. Hansell cited a case which was traceable to an abscess of an upper tooth, which caused purulent inflammation of the antrum and subsequently infection of the anterior ethmoidal cells. Thorough drainage, with local treatment of the naso-pharynx, brought about a complete cure.

Dr. G. C. Harlan called attention to a method of performing *Iridectomy in Case of Obliteration of the Anterior Chamber,* which was described by Gayet at the meeting of the French Ophthalmological Society in 1884, but which has been ignored by text-books and does not seem to be as generally known as it should be. After fixing the eye with the double fixation forceps, Gayet makes a minute incision into the periphery of the anterior chamber with the ordinary scarificator by sawing movements, enlarging the incision with blunt scissors. Dr. Harlan had found this method of operating very useful recently in a case of chronic iritis with increased intraocular tension. The pupil was completely adherent at its margin, while the iris bombe lay directly against the cornea. It would have been impossible to make an incision with the keratome or Graefe knife without involving the iris and possibly endangering the lens. He had found a narrow Weber canaliculus knife admirably adapted to enlarging the incision. Its probe point passes readily between the iris and cornea. He had been much pleased with the perfect ease and safety with which the operation was performed.

Dr. S. Lewis Ziegler presented a case of *Hemophilic Extravasation into the Conjunctiva, Antrum, and Cheek,* associated with habitual constipation. The woman, aged 26 years, had three previous attacks, milder in character, the first when 7 years old. Breathing was obstructed by intranasal swelling, and the antrum closed intermittently. There was constant hemorrhage from the conjunctiva and mouth for two days, and oozing for two days more, being relieved by ergot and adrenal extract. Cauterization of the inferior turbinate and the establishment of free catharsis caused rapid improvement, the absorption of the facial edema being synchronous with the re-establishment of free breathing and increased oxidation.

Dr. Ziegler also reported *Recurring Hemorrhages from the Ciliary Body,* in a woman, aged 26 years, who suffered from habitual constipa-

tion. The patient first noticed three weeks before a small black spot before the right eye, which gradually increased in size until a ring was seen on looking upward, followed soon afterward by complete obscuration of vision. Had two previous attacks at intervals of a year, both following periods of constipation varying from three to ten days, the constipation preceding the present attack being more than usually obstinate. There was also obstructed breathing from intranasal swelling. Blood-clots on the posterior capsule prevented a view of the fundus. The symptoms would indicate bleeding from a ciliary vessel, occurring between the hyaloid membrane and the posterior capsule of the lens. The associated constipation bears out the observation of Eales, of Birmingham, who claims that such hemorrhages are due to this cause. Under free purgation, pilocarpin sweats, and iodid internally, the hemorrhage has begun to be absorbed.

Dr. John T. Carpenter read a paper on *Purulent Choroiditis* occurring in a boy, 2 years old, who had suffered from a severe attack of mumps four weeks before. There was deep-seated yellowish reflex behind the pupil, and the entire uveal tract became infiltrated with pus. A diagnosis of metastatic choroiditis was made. Secondary glaucoma and commencing staphyloma in the ciliary region necessitated enucleation. On examination of the eyeball by Dr. Shumway there was accidentally discovered a minute rusty particle of iron, 1 mm. in diameter, which responded to the chemical tests with hydrochloric acid and potassium ferrocyanid. Study of the microscopic sections showed rupture in the anterior capsule of the lens, splitting up of the lens fibers, a corresponding rupture in the posterior capsule, and a bluish line in sections subjected to the Perl test, apparently denoting the track of the iron. In the absence of any history of traumatism, the attack of purulent choroiditis in a young child convalescing from mumps was naturally interpreted as metastatic choroiditis. It was found on later investigation that the child had played in a blacksmith shop during convalescence, and, although there was no history of an accident, the iron evidently entered the eye from the anvil, giving rise to panophthalmitis. It was fortunate enucleation was promptly done, and sympathetic trouble thus prevented.

Dr. H. F. Hansell made some remarks on the *Use of Pilocarpin in the Treatment of Inflammations of the Eye.* He read the history of a number of cases, and gave in detail the method he employs in the treatment. The cases were those of interstitial keratitis, traumatic purulent

iritis, vitreous opacities and retinochoroiditis. In most of the patients the improvement had been most rapid and marked, while in all the treatment had proved beneficial. He expressed regret that the treatment had not been more generally followed in chronic deep-seated ocular inflammations where the usual routine treatment was most prolonged or unsuccessful, and felt sure from his increased experience that many of these forms of inflammation and of loss of vision could, with few exceptions, be materially improved. The recovery in some of the cases described was most satisfactory. The most striking was that of Case No. 1, of traumatic purulent kerato-iritis, in which the intense injection had decidedly cleared and the large collection of pus in the anterior chamber altogether disappeared in twenty-four hours, with complete recovery in one week.

Discussion.—Dr. de Schweinitz had secured gratifying results with pilocarpin in the treatment of the same class of cases referred to by Dr. Hansell. He stated that some nerve specialists placed great reliance upon the drug in toxic insanity after influenza, autointoxication and similar processes, the brain rapidly clearing after two or three sweats. Apart from its action hypodermically, he had found pilocarpin or the fluid extract of jaborandi, in small doses by the mouth, to be of value, especially in degeneration of the vitreous. He had never had but twice unpleasant symptoms following the pilocarpin sweating, one a bad attack of pulmonary edema and the other intense salivation. The persistent nausea that is so common after the use of the drug is usually relieved by small doses of chlorodyne, as suggested by Dr. H. C. Wood. Dr. Shumway had, in one instance, persistent secondary sweating, for which he was compelled to use alcohol bathing. Dr. Hansell said he had never had to employ measures to limit the period of skin action.

Dr. G. E. de Schweinitz reported a case of probable *Methyl-alcohol Amaurosis, the Pathway of Entrance of the Poison being the Lungs and the Cutaneous Surface*, and reviewed the literature of blindness from this liquid. The man, aged 39, was a varnisher by trade. Two months prior to his amaurosis he had been constantly employed in shellacking, and was accustomed to dilute the shellac to the desired thinness with methyl-alcohol. He was therefore almost uninterruptedly during the working hours of this period exposed to the fumes of the wood-spirit, and was also accustomed at the end of his day's work to wash his hands, forearms and face with the same liquid in order to remove the shellac stains. Dr. de Schweinitz drew particular attention

to the dangers which workers in this liquid ran, and thought that they, as well as their employers, should be properly warned. He pointed out the analogy between these dangers and those which were encountered by workers in lead, nitrobenzol and dinitrobenzol, and how in the last three-named trades all proper precautions were taken to prevent the well-known toxic action of these drugs.

Discussion.—Dr. Hansell said that he had examined the man on several occasions. When he first came to the Jefferson Hospital he had double optic neuritis of moderate grade and was totally blind. Under treatment vision improved in each eye so that he was able to go about the streets alone. The improvement was retained for a few weeks and then vision commenced to decline. The diagnosis that was made at the first examination was hemorrhage into the chiasm, and this seemed to be confirmed at later examinations by a well-marked right hemianopsia, distinctly outlined in the left eye and less complete in the right. The optic neuritis gave way rapidly to atrophy. There was no paralysis of any of the ocular muscles.

Dr. Wm. Thomson gave a demonstration of a *New Lantern Test for Detecting Color Blindness,* being aided by a young ophthalmologist who suffered from green blindness, the form of color defect which has been found most difficult to detect by the wool test of Holmgren and its varieties. Two years ago the young man had spent much time in trying the wool test, but always made an average of five failures. With the color stick he promptly selects the reds and the pinks, and half of the greens, making mistakes only in the group of light greens, which, with their confusions, he sees as yellowish-brown. With the new wool test, arranged for these difficult cases, he does not select any blues with the rose or pinks, but reveals his real defect by confusing them with the greens. He so nearly passes the wool test that it is seen why practical examiners say that the Holmgren test does not succeed except in the hands of ophthalmic experts, and cannot be used by a lay examiner. The secret is revealed by the use of the spectroscope. Like all color-blind, his spectrum presents but two colors, yellow and blue. This coincides with the usual red-blind man, whose spectrum is shortened at the red end. To show that there is a red perception in this case, a violet screen, composed of red and blue, is placed in front of the spectroscope, when he loses all of the yellow and green part, but clearly sees the end of the red. A red screen also cuts off his entire spectrum except the red portion, as it does in persons of normal color perception.

This seems to show that he is dechromic, and partially color-blind, having the red and blue sensations, but lacking the green. That he sees reds is proved also by his having red-blindness when looking at red through a peacock-green glass, the same as with the normal eye. To render the detection of these doubtful cases certain, Dr. Thomson proposed the use of colored glasses arranged in a lantern in two revolving discs. In the lower disc are the usual colored glasses employed on railroads, and in the upper one their confusion colors. The patient was perfectly helpless in this test, and failed to recognize the colors shown. Recently a trained railroad official, who had found five doubtful cases with the usual wool tests, rapidly determined the true color perception of the individuals by the lantern. Dr. Thomson believed that the lantern should be employed on all railroads as a supplement to the wool test.

WILLIAM M. SWEET,
Clerk of Section.

DENVER OPHTHALMOLOGICAL SOCIETY.

Meeting, February 19, 1901, Dr. Edward Jackson in the chair.

Dr. Melville Black presented two cases: (1) *Cicatricial obliteration of the orbital cavity with adherent lids.*—The second case was a woman, aged 26 years, vision O. D. nil. O. S. 5/4. When 12 years of age the right eye became blind after a severe attack of scarlet fever. Before that time, however, the vision in the eye was poor and the pupil larger than that of the fellow eye. During the past two years the eye had been red and painful. The pupil of the right eye was now dilated ad maximum, the lens was totally opaque and of a dark muddy color, no fundus reflex could be seen. The T was + 1. The patient was a poor woman and Dr. Black wished an expression of opinions of the members as to the relative values of an iridectomy or an enucleation in this case. Dr. Edward Jackson believed an enucleation was indicated, as there was a possibility of an intraocular growth. Dr. E. Jackson exhibited an eye enucleated three days before. The patient was a miner who had been struck in the eye by a flying piece of stone. When first seen by Dr. Jackson the eye was freely suppurating and there was a rather large wound extending from about twelve nine below the cornea, through the ciliary processes into the cornea. There had been a prolapse of the iris into the wound which had been excised by the physician who first saw the case. On removal of the eye Dr. Jackson had found no stone or other foreign body, but

it contained a large partially organized clot. The lens was absent. Dr. Freidman reported a case of pannus without trachoma or keralitis, occurring in a scrofulous male patient, aged 29 years. The pannus extended over about one-third of the upper half of the cornea.

Dr. D. H. Coover, in opening the discussion on *corneal ulcers,* said: There is one form of corneal ulcer which he had often seen and which he had found very rebellious to treatment. He had at the present time under observation, an ulcer of this variety following an injury to the cornea from emery. It was an excavated or gouged out ulcer, presenting all the appearance of a punched out excavation, with transparent bottom and free from any opaque surrounding area of infiltration. These ulcers were, in Dr. Coover's experience, situated in any portion of the cornea. They were at times painful, but in some cases they might be easily overlooked owing to entire absence of pain. He had treated these ulcers by the local application of Tinct. iodine, carbolic acid and acetic acid. In the case under his care at the present time, dusting the ulcer every day with protonuclein had seemed beneficial. Atropin was also instilled. This ulcer had existed over four weeks, but was now improving.

Dr. W. C. Bane read a paper on *Corneal Ulcers Occurring with Trachoma.* He thought this was one of the most painful and protracted forms of corneal ulcer. It was usually situated in the upper third of the cornea near the temporal, or nasal margin, and gradually extended in an irregular crescentic curve across the cornea, leaving an opaque line in its wake. Occasionally there will also appear a small ulcer near the lower corneal margin, while the upper one is extending. These ulcers do not perforate the cornea, but leave more or less cicatricial tissue to mark their path. These ulcers invariably leave facets, which lower the vision very much when they happen to be in the center of the cornea. While nearly all authors refer to trachomatous ulcers, little is said of their treatment. He believed that copper should always be applied to the lids when a corneal ulcer arises in trachoma. Cleansing the nasal passages with an alkaline and antiseptic wash will often aid materially in bringing about recovery. Locally, Dr. Baine uses holocain to relieve pain and either curets the ulcer or touches it with carbolic acid every other day. He had often seen cases greatly benefited by the daily use of glycerole of tannin.

Dr. J. A. Patterson gave the clinical history of a case of *traumatic keratitis:* A man, aged 56, consulted him on January 20th with the

complaint that six days before he had been struck in the right eye by some scales of dry paint and iron-rust that he had been chipping from the firebox of a locomotive; the shop foreman had removed the foreign substances from the eye, possibly some were imbedded in the cornea, but owing to the patient's mental calibre this could not be learned positively. The patient immediately resumed work with very little discomfort and continued his employment until two days afterward, when, in painting with black paint, the chemical composition of which was believed to be "coal tar, benzine and a little turpentine," "with no lead," he splashed a large quantity of this paint upon his face and into his right eye. This caused so much discomfort that he quit work. The cornea presented a haze involving the entire center of the cornea. The epithelium was smooth, excepting over the point of densest opacity, where there was lack of perfect covering, the corneal outline at this point appearing softer and rougher; the pupil was moderately dilated for a man of his age, being approximately 3.5 mm. in diameter and was larger than that of the left eye T. N. The pupil would not dilate under atropin (4 gr. sol.) Homat (5 gr. sol.) or Cocain (4% sol.) applied in rapid alternations for over an hour. No synechia were noted. There was very little circumcorneal injection, dull aching and a small degree of photophobia were complained of. The patient claimed to have had perfect visual activity in the eye before the accident—admits being treated eight years ago for an affection in this eye, which, from his clinical description, is presumed to have been some severe form of conjunctivitis, the lid shows no scars suggestive of trachoma. The discomfort gradually abated under a collyrium of boracic acid and a 1 gr. solution of atropin. He returned to work on February 4, having three or four days before been given a 2 gr. solution of atropin in place of the weaker solution, and a 10 gr. solution of protargol for a mild conjunctivitis. He worked one day and a half when the eye began aching more severely than before, so that he ceased work but did not consult Dr. Patterson until February 9. The pupil then presented the same uniform size described. There was intense circumcorneal injection. Infection had taken place at the center of the cornea at the spot of greatest opacity and a small abscess was present under the superficial corneal layers. Incision failed to evacuate it as the pus layer was spread out as a thin plate and was thick and adherent. A vessel running from the outer lower corneal limbus was seen extending to

the edge of the infected area. This area was immediately seared with the galvano cautery knife under cocaine anæsthesia and atropin continued. At the present time the infection has not spread and the inflammatory symptoms are stationary. I present the weaker and stronger atropin solutions which he obtained on prescription from the pharmacy. In both instances the atropin was ordered in a 10 gr. solution of boracic acid in distilled water. The boracic acid has recrystallized and penicillum is present. Inquiry at two pharmacies discloses the fact that the druggists are in the habit of keeping a stock 10 gr. solution of boracic acid, made, they claim, with distilled water. This is dispensed on prescriptions ordering such solutions. The patient was directed to keep the eye droppers in the neck of the bottles containing the solution to avoid their contamination from outside sources. Dr. Patterson had reported this case to illustrate a probably frequent cause of corneal infections. No bacteriological examination of the solutions had been made.

Dr. Melville Black had observed in many cases of corneal ulcer under his care, that where the condition was not immediately referable to local disturbances, such as diseased lids or injury with infection, there seemed to be a constitutional factor that caused at some future time a recurrence of the corneal ulcer. The period of freedom from corneal annoyance may have been because the systematic condition was favorable to a healthy corneal nerve supply. Often the patient is unconscious of any change physically, even where the cornea is affected. For its nutrition and preservation, the cornea more than any other part of the eye is dependent upon an equal balance of its nerve mechanism. This, to his mind, explained the varied forms of corneal ulcer. The many derangements of this nerve supply cause a like number of corneal disturbances. Some physical derangements leading to perverted corneal nerve supply may never recur, and the patient will never have another similar attack of keratitis. Our treatment is usually directed toward improving the nutrition of the cornea and destroying infection, and maintaining asepsis. The corneal nerve disturbance in the beginning may have been short, and the period only long enough for the ulcerative process to get well under way. In such cases our remedies work like magic, and our patient is soon well. Again the corneal neurosis is profound and lingers to complicate and baffle our best efforts to combat the local disease of the cornea.

Dr. Edward Jackson said there were two clinical types of disease of the eye established by bacteriology. The diplobacilliary conjunctivitis was one, the pneumonococcus corneal ulcer was the other. The pneumonococcus ulcer was the serpent ulcer. In a typical case this ulcer was shallow, with abrupt edge on extending side, while on the other side of the ulcer vessels run into it. This ulcer extends by infiltration, which is a growth of the micro-organism between the layers of the cornea. The pneumonococcus ulcer was amenable to treatment. Curetting was usually effective, but the ulcer should be closely watched and again curetted, if extending. He had lately under observation a pneumonococcus ulcer occurring in a boy with tuberculosis. There was a history of an ulcer of the same eye four or five times before, coming on in the winter or early spring, and lasting five weeks, with recovery. When he first saw the case there was an ulcer of the upper part of the cornea. This ulcer was rather deep. After curettment the improvement was notable. Next day, however, the ulcer was again extending, when it was again curetted, and again on successive days as new points of infiltration developed. Finally a ten per cent. solution of nitric acid was applied and this application was repeated the following day, when the ulcer began rapidly to heal.

The Emperor and Empress of Germany are to be represented in the stained glass windows of an institution for the blind at Koenigswusterhausen, a country town about thirty miles to the south of Berlin. The institution was built and endowed by Herr Herman Schmidt, a Hamburg merchant. The work enjoys the special protection of the Kaiser, who takes the greatest interest in it. His Majesty has given ten acres of land out of his private means and done much toward the decoration of the home by presenting several beautiful stained glass windows, and has ordered that on the front of the building, facing the main road, the figures of the Emperor and Empress of Germany shall be executed in glass mosaic. The figures are about 5 feet 6 inches high. One represents the Kaiser as a knight in richly embroidered clothing, with an old-time helmet on his head. In one hand he holds an unsheathed sword, in the other the model of the institution. The left-hand figure represents the Empress as St. Elizabeth. She has been carrying bread to the poor and had hidden it under her cloak from the eyes of her stern husband, when by a miracle it is turned to roses.

NEWS ITEMS.

Personals and items of interest should be sent to
Dr. Frank Allport, 92 State Street, Chicago.

Colored Pictures of the Fundus.—We would like to draw the attention of our readers to the colored frontispiece in this number of the OPHTHALMIC RECORD, showing a normal fundus, that presents some deviations from the usual type.

Most fundus pictures, as shown in atlases and text-books, are especially too yellow, or too much glazed, or exhibit a glaring combination of these defects. Dr. Beard's drawing has been reproduced by a method that shows the soft reds of the background as they are actually seen with the ophthalmoscope, and we hope that future works on ophthalmoscopy may have the benefit of this or a similar process for the more faithful picturing of the fundus—normal and pathological.

Dr. R. A. Reeve has been reappointed dean of the medical faculty of Toronto University.

Provost Harrison, of the University of Pennsylvania, has appointed a committee to assist him in promoting the welfare of the University. In the list we notice the name of Dr. Charles A. Oliver.

Dr. Geo. Scale, of England, who retired from practice in 1872, on account of glaucoma, has left twenty thousand pounds to provide annuities for blind persons who are in need.

Services Appreciated.—At the recent meeting of the Canadian branch of the Red Cross Association a resolution of thanks was passed to Dr. Ryerson for work in South Africa, and $500 voted toward defraying his expenses. Letters were read from Lord Roberts and Surgeon-General W. D. Wilson, principal medical officer of the army in South Africa, commending Dr. Ryerson very highly for his valuable services.

Dr. Frank Allport, of Chicago, has associated with him in his practice Dr. Paul Guilford, of the same city.

Dr. Alexander J. Erwin, Mansfield, Ohio, who spent the winter in Egypt and recently has been visiting the eye, ear and throat clinics of Paris and London, has returned to Mansfield.

Cleanliness in School.—School teachers in Brooklyn complain that the school-rooms are not washed often enough. Sweeping and dusting as usually done is not sufficient as any marching exercise stirs up a great deal of dust, endangering health and causing conjunctivitis.

Dr. William Campbell Posey has been elected professor of diseases of the eye at the Philadelphia Polyclinic, to succeed Dr. Risley, resigned. Dr. Posey is a graduate of the University of Pennsylvania, has studied abroad, and is connected with the Wills' Eye Hospital, Howard, Epileptic, and Home for Incurables.

Through the efforts of a committee appointed by the Denver and Arapahoe Medical Society, examinations of the sight and hearing of school children has been instituted in the Denver schools. The examinations are conducted by the principals and teachers. The results so far have been most gratifying to all parties concerned.

At the Iowa State Medical Society meeting, held in Davenport, May 15th, 16th and 17th, the following ophthalmological papers were read: "Correction of Eye Affections with Glasses," by R. L. Lapsley, of Keokuk; "A New Finding in Ophthalmology," by E. H. Hazen, of Des Moines. Dr. G. C. Moorhead, of Ida Grove, was chairman of the section.

The Buffalo Academy of Medicine held its regular meetings during the month of February, and the following papers were read before the Eye and Ear Section. Monday evening, February 18. Program: Presentation of a Case-Macular Choroiditis, with Cholesterin Crystals, J. C. Clemesha. The Eye in Nervous Diseases, W. C. Krauss. Certain Diseases of the Eye Benefited by Treatment of the Nose and Nasopharynx, B. H. Grove.

At the eleventh annual banquet of the Lincoln Club, of Portland, Me., held in Portland, February 12, 1901, Dr. E. E. Holt, of Portland, delivered an eloquent address on Abraham Lincoln, the Great Commoner.

The Episcopal Eye, Ear and Throat Hospital, Washington, has purchased a lot for its new buildings, at the expense of $9,500. The erection of the new buildings will be begun as soon as $25,000 has been subscribed to the building fund. Of this amount more than $3,500 has been already secured.

American Academy of Medicine.—At a well-attended dinner given at Philadelphia on March 16th by fellows of the American Academy of Medicine of that city and its vicinity, addresses were made by Drs. S. D. Risley, Charles McIntire, G. Hudson Makuen, W. W. Keen, and others on the objects of the academy, and it was agreed to form a local branch, to meet in the intervals between annual meetings and in other ways foster the spirit and promote the aims of the academy.

Dr. Reynolds to Resign.—As a result of serious difficulties in the faculty of the Hospital College of Medicine, Louisville, Dr. Dudley S. Reynolds, professor of diseases of the eye, ear, nose and throat, and of medical jurisprudence, will in all probability shortly retire from the faculty. Professor Reynolds is chairman of the judicial council of the Association of American Medical Colleges, and his term as a member of the council expires at the next meeting.

A movement has been set on foot by Drs. Samuel D. Risley, Edward Randall and others, of Philadelphia, together with the corps of school medical inspectors, whereby it is hoped the Board of Education will adopt a plan to have examinations made of the eyes and ears of all pupils attending the public schools. To a certain extent this has already been done by the corps of volunteer medical inspectors, but the work has not been satisfactory, since a great amount of time is required to do this work thoroughly. It is hoped that school medical inspection will be put on a paying basis, and that the above work can be instituted, beginning with the fall term. Up to this time both branches of city council have entirely ignored the work of the school medical inspectors.

The Chicago Eye, Ear, Nose and Throat College has moved into its new building, which has been fitted up with great pains for the reception of patients. A hospital is connected with the institution now so patients will find there accommodations in case it is desirable for them to remain for care, treatment, etc.

At the ninety-fifth annual meeting of the Medical Society of the State of New York, held in Albany, January 29-31, Dr. Jacobi, of New York, chairman of the Committee on Prize Essays, reported that the best essay submitted was written by Dr. Lucien Howe, of Buffalo. The essay was entitled "On the Measurement of the Inter-Ocular Base Line and the Size of the Meter Angle." The prize was $100. We congratulate.

A. E. Prince and W. T. Montgomery were recently appointed trustees of the Chicago Eye and Ear Infirmary by Governor Yates. Both these gentlemen are members of the Illinois State Medical Society in good standing and are eminently qualified for the positions to which they have been called. It is to be hoped that the signs will point to a continuation of the merit system inaugurated by the former board.

A joint dinner of the Chicago Neurological and Ophthalmological Societies was held at the Sherman House, Tuesday evening, May 14, at 6 p. m. At 8 o'clock there was a Symposium on the Ophthalmic and Neurologic Aspect of Hysteria, Gout and Degenerations of the Nervous System, as illustrated by patients presented by Drs. D. R. Brower, Archibald Church, H. T. Patrick, F. C. Hotz Henry Gradle, W. H. Peck, F. A. Philips, C. H. Beard, W. E. Gamble, J. B. Loring and W. Walter.

Western Ophthalmologic and Oto-Laryngologic Association.—The sixth annual meeting, held at Cincinnati, April 11 and 12, was the most successful in the history of the Association. The following officers were elected: Dr. Christian R. Holmes, Cincinnati, president; Drs. William L. Dayton, Lincoln, Neb., Joseph O. Stillson, Indianapolis, and Hanau W. Loeb, St. Louis, vice-presidents; Dr. William L. Ballenger, Chicago, secretary, and Dr. Otto J. Stein, Chicago, treasurer. The next annual meeting will be held in Chicago, in April, 1902.

Mercury and Iodide of Potassium Given Internally with Pilocarpine Hypodermatically in Diseases of the Eyes.—By G. H. Burnhamby. Cases are reported of sclero-keratitis and of cyclo-irido-keratitis. The results were good, though the cases were still under treatment when reported. The author attributes the good effects of the drug combination named in the title to its power of arousing to excessive activity, in a vigorous and sustained manner, the normal physiological processes in diseased tissues, and thus acting so in accord with the efforts of nature as to bring about a restoration to a normal condition.

Arrangements have been made at the June meeting of the American Medical Association to have the sections of Ophthalmology, Otology and Laryngology meet in adjoining halls. The exhibition of instruments, in which these sections are especially interested, will be given in the same hall, together with the exhibit of Ophthalmoscopes and ophthalmoscopic literature from the time of Helmholtz down to the present day. Every attention has been given to make the meetings of these two sections a perfect success. The banquet of both sections will be given at the Minnesota Club on Tuesday evening, under the direction of D. C. Williams.

Chicago's blind are invited to attend free instruction classes in the reading of embossed print to be given by the Social and Mutual Advancement Association. By permission of the Chicago Public Library management the first room west of the Randolph street entrance will be open each Saturday between the hours of 2 and 4 in the afternoon to all blind persons. Members of the association will be present to teach those who had not learned to read before deprived of sight.

The library now has 800 books for the blind, including works in the American line print, the Braille print, and the Moon print. Between 75 and 100 books for the blind are circulated by the library each month, while a number of blind persons call at the library each day.

It is the intention of the officials of the library to add to the stock of books for the blind. The latest addition comprised 150 of the Braille print.

The Use and Abuse of Spectacles.—Hasket Derby protests against the use of glasses when they are not absolutely necessary. If hypermetropia be moderate, it is a mistake to use glasses for anything but close work, for the patient is reduced to a dependence upon them which might be avoided. In myopia glasses are probably worn too little, but great care must be exercised in treatment, and no glass should be ordered until a thorough investigation of the history of the patient, the family tendencies, the acuteness of vision, and the condition of the interior of the eye has been made. As to astigmatism, so much relief has been given by glasses that the tendency is to prescribe them when they are not strictly needed. The author believes that they can be dispensed with in cases in which vision, either with or without a spherical glass, is found equal in unity. As to muscular weakness, it is often cured by an improved general condition, without the use of prisms.—*The Boston Medical and Surg. Jour.*, Feb. 28, 1901.

Ophthalmic Goiter.—At a recent meeting of the Society of Neurology Dr. Babinski described the results he had obtained in the treatment of exophthalmic goiter by salicylate of soda. In one case a woman, 28 years old, began to show symptoms of this affection nearly three years ago. Since January, 1899, the symptoms have increased considerably, and in February there was a clearly defined goiter, very apparent exophthalmia tremulation in the arms, and the pulse was 140. The patient had grown much weaker and lost flesh. The treatment by salicylate of soda was recommended and continued several months. In October, 1899, the condition of the patient was absolutely transformed. The pulse was only 80, the goiter and tremulation had disappeared, the patient's strength had returned and she had increased in weight. Toward the end of last year all exophthalmia had disappeared. Dr. Babinski also cited two other cases where noticeable improvement followed the use of salicylate of soda.

Dr. Frank Wayland Abbott, one of the best-known oculists, died at his home, 523 Franklin street, Buffalo, N. Y., April 9, 1901, after an illness of about three months. During his long residence in Buffalo, Dr. Abbott was prominently identified with a great many charitable institutions, and these, in connection with his regular work, took up a great share of his time and attention, and taxed heavily upon his strength. He had not been in good health for some time

past and death was apparently due to a general wearing out of the tissues.

Dr. Abbott was born at Sandoway, Aracan, Burmah, on the 24th of December, 1841. He was the son of Elisha L. and Ann Gardner Abbott, Baptist missionaries. His mother dying when he was three years old, he was taken by his father to an aunt, Miss Gardner, who resided at Fulton, N. Y., where he made his home until seventeen years of age. His father died about that time, and shortly after his death the young man went to Rochester and entered Rochester University, from which he was graduated in 1863. From Rochester Dr. Abbott came to Buffalo and entered the medical department of the University of Buffalo, graduating in the class of '66, of which class Dr. Hopkins, Dr. Diehl and a few other prominent physicians and surgeons were also members. Subsequently he took a post-graduate course in ophthalmology and otology, studying under prominent New York specialists and in the New York College of Physicians and Surgeons. In 1869 he returned to Buffalo and married Miss Julia Baker, eldest daughter of Judge Albert L. and Sarah Miller Baker. His wife and one son, Frank W. Abbott, Jr., survive him.

Dr. Abbott was for a short time during the war the assistant hospital surgeon at a large hospital in Nashville, Tenn., and before he gave up his time to special work he engaged in general practice for a few years. He was one of the organizers of the Eye and Ear Infirmary of this city, a leading oculist at the Buffalo General Hospital and a prominent member of the American Ophthalmological Society and the Erie County Medical Society, Buffalo Academy of Medicine, and other organizations of physicians, and also of the University Club and numerous scientific organizations. The establishment of training school classes at the General Hospital was largely due to Dr. Abbott, and his influence was felt in practically all of the medical and surgical institutions of the city.

Dr. Abbott was a man of strong religious convictions, and an active member of St. Paul's church, and devoted a great deal of his time to work among the poor.

The *Philadelphia Medical Journal* in its editorial columns prints the following:

A Plea for the Ophthalmoscope.—Although ophthalmology is destined to remain within the exclusive confines of specialism, its

creation as a major branch in many medical colleges has offered opportunities to the student-body which unfortunately are not always appreciated until too late. It is remarkable, but true, that many otherwise excellent physicians are not only ignorant of ordinary external ocular affections, but are absolutely unfitted to inspect this important organ as an accessory means of diagnosis. It seems almost incredible that an organ which in its structure practically represents a combination of almost all varieties of normal tissues, which permits of the inspection of exposed nerves and blood vessels in situ, and in which there arises such a variety of pathological changes, indicative of systemic affections, should be so neglected by the general practitioner. How often is the ophthalmologist consulted as the last court of appeal when some physician has been instilling a mydriatic into a glaucomatous eye, and how seldom is he approached as a first court of appeal when the detection of intraocular changes might have elicited many valuable diagnostic factors. No one, of course, should attempt to perform any operations upon the eye unless he has had considerable experience; but this does not apply to the treatment of simple corneal ulcers and uncomplicated cases of conjunctivitis, which are so frequently unintelligently treated by the family doctor. The expressions of students and even practitioners regarding their distaste for ophthalmology have their inception in several sources. In the majority of cases these dislikes are due to the fact that in the teaching of other branches of medicine but very little attention is paid to the eye. Again, the subject of "refraction" is taught to those who have preconceived intentions of forever banishing it from their consideration after they have graduated. Notwithstanding that the eye and its appendages consist of fibrous, adipose, areolar, muscular, nervous, vascular, glandular, osseous and specialized, hair, skin and cartilage, it is given but an insignificant position in modern treatises on pathology. If the intelligent use of the ophthalmoscope by the general practitioner would take the place of his frequent unintelligent use of the test lenses, much would be gained in diagnosis and treatment.

The Holmgren Test.—In the text-books on ophthalmology the Holmgren test for color-blindness is generally mentioned as the most satisfactory and practical: in some of them other tests are scarcely even mentioned. The efficacy of the worsteds has become as it were an established dogma of ophthalmology, that it is almost heresy to

Dr. George Sterling Ryerson, Toronto, has been created a Knight of Grace of the Order of St. John of Jerusalem, for services in South Africa. Mr. Frederick Treves and Mr. A. D. Fripp received similar honors at the same time.

Busts and Relief Portraits Given to the Blind.—There is quite a large and valuable collection of busts and relief portraits of authors, poets, musicians, statesmen, and other great men, the accumulation of years, in the copyright division of the library of Congress. Until the present time the collection was not so placed that it could be enjoyed by any one, but in going over the working divisions of the library Mr. Putnam, librarian, came upon the collection and conceived a novel and beautiful plan for its disposition.

A shelf within easy reach will be put about the walls of the rooms in the library devoted to the blind and upon these will be handled readily by the sightless and through the tips of their fingers they will come to know the features and characteristics of the people already well known to them in literature.

It was with Ellen Terry that the idea originated. During her last visit to Washington she met a number of those who frequent the reading-room for the blind at the Congressional Library and sent them tickets to one of her matinees. After the performance she invited them upon the stage and allowed them to hold her hand and even run the tips of their fingers over her face that they "might see her." This so touched her heart that she had made a portrait of herself in relief and sent to the reading-room for them.

At the time of the death of ex-President Harrison these people were much interested in him and his history and were given some interesting talks by different people. A bust of the General that had been sent to the copyright division during the World's Fair by a well-known Japanese artist was sent to the reading-room, and the blind people exclaimed in a breath: "How like a Japanese our President was." Sure enough, the little Jap had elevated the eyebrows and otherwise given to the really good portrait of the ex-President a decidedly Japanese cast of countenance.

When told of this incident Mr. Putnam at once decided to place these bust portraits in the reading-room for the blind. It is no longer the custom to send either a bust or relief of the subject for copyright, but instead a photograph, so the collection will not grow.

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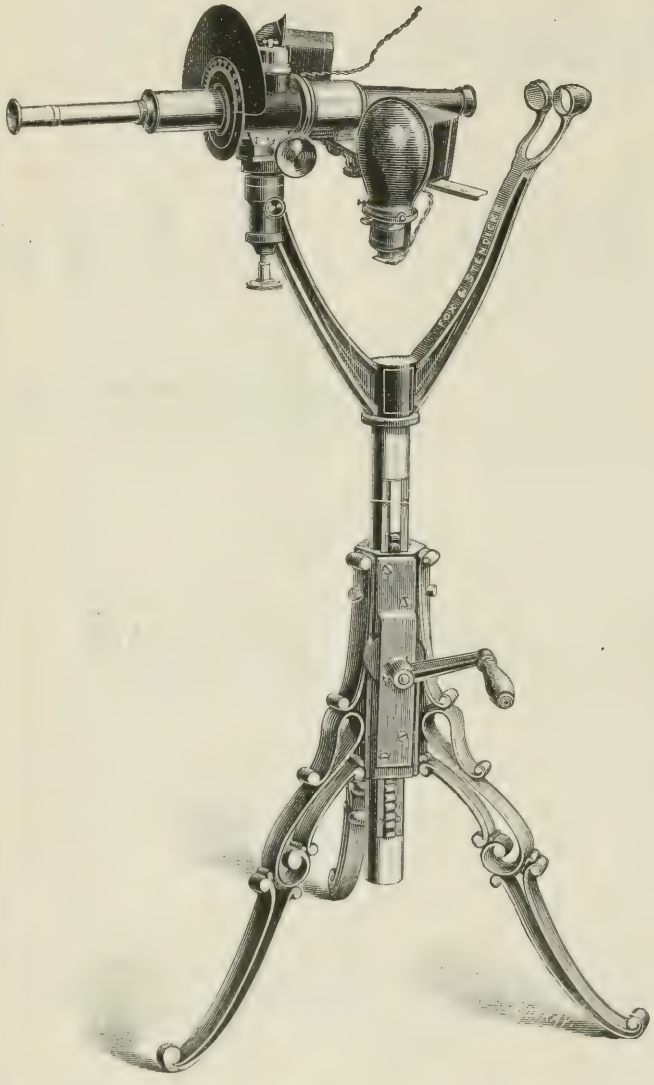

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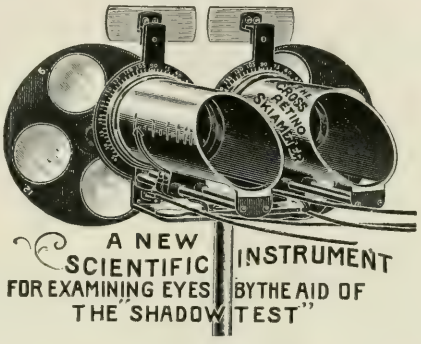

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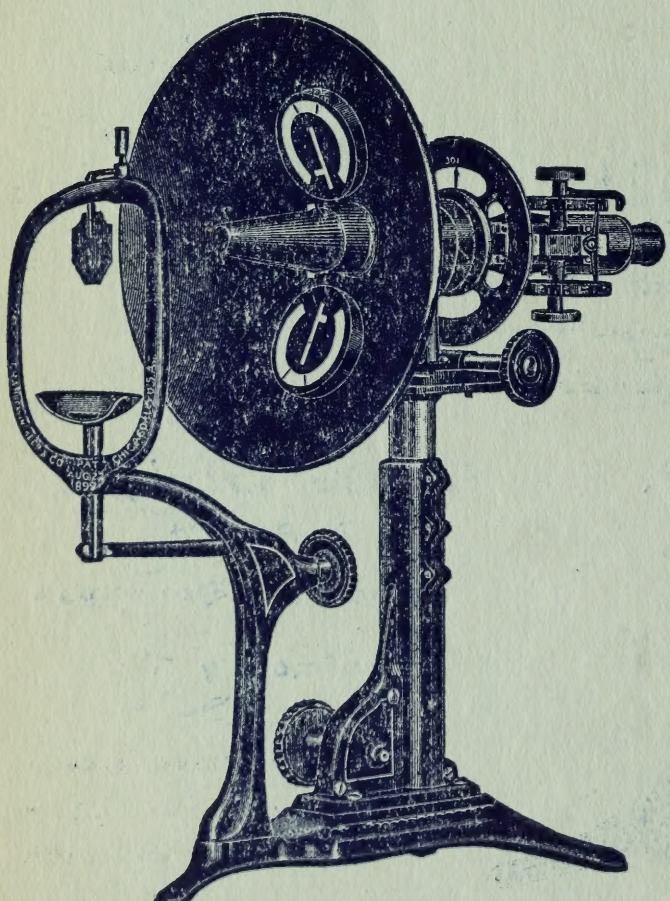

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